

P 9604
1. 988
Copy 3

SOUTH CAROLINA SANTEE COOPER



ANNUAL REPORT

1987-1988

S. C. STATE LIBRARY

JAN 17 1989

STATE DOCUMENTS

Printed Under The Direction Of The
State Budget And Control Board

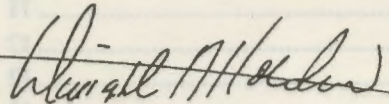
LETTER OF TRANSMITTAL

November 1, 1988

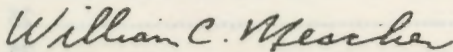
To: The Governor and General Assembly

In accordance with law, we are privileged to submit to you the Annual Report of Santee Cooper, South Carolina Public Service Authority, for the fiscal year 1988.

Respectfully submitted,



Dwight A. Holder
Chairman of the Board



William C. Mescher
President and
Chief Executive Officer

TABLE OF CONTENTS

Letter of Transmittal	1
Corporate Statistics	3
Financial Summary	4
Comparative Highlights	5
Executive Summary	6
Energy Sales	9
Distribution	9
Energy Management	10
Generation and Load Growth	11
Nuclear Operations	11
System Planning	11
Engineering and Construction Management	12
Performance and Environmental Services	12
Production	13
Power Generating Stations	14
Power Supply	24
Design Engineering	24
General Construction	24
Transmission Operations	25
Project Management	25
Reliability	25
Corporate Communications	26
Marketing	26
Flood Control	27
Environmental Resources	27
Mosquito Abatement	27
Water Quality Management	27
Aquaculture	28
Horticulture	28
Property Management	28
Program for Employee Participation	29
Employee Relations	29
Occupational Health	30
Training and Development	30
Safety	30
Corporate Forecasting, Rates, and Statistics	31
Management Information Systems	31
Accounting and Finance	32
Schedule of Bonds Outstanding	34
Schedule of Refunded Bonds	37
Financial Statements	38
Auditor's Report	38
Board of Directors	50
Changes in the Board	50
Management	51
Advisory Board	52

Corporate Statistics

Fiscal Year	6/30/88	6/30/87	6/30/86	6/30/85	6/30/84	6/30/83	6/30/82	6/30/81	6/30/80	6/30/79
Total Utility Plant-net including nuclear fuel (at year end) (in thousands of dollars)	1,749,244	1,727,848	1,745,892	1,773,788	1,779,161	1,670,571	1,467,710	1,205,200	950,628	759,839
Bonded Indebtedness (at year end) (in thousands of dollars)	1,964,110	1,998,105	1,938,230	1,919,750	1,788,750	1,796,545	1,735,850	1,261,420	990,100	917,690
Operating Revenues (in thousands of dollars)										
Residential	53,658	52,433	46,529	41,414	35,572	28,098	27,121	21,949	17,639	15,255
Commercial	53,481	50,998	46,709	39,268	32,865	28,853	28,145	22,452	18,835	16,822
Industrial	150,961	139,207	139,681	152,549	132,833	124,015	131,189	99,551	40,417	35,131
Military	17,624	18,221	18,000	15,649	13,978	12,893	12,487	9,225	6,954	6,567
Municipal	1,873	1,675	1,792	1,575	1,254	1,029	955	704	587	546
Wholesale	210,087	212,891	198,826	177,906	140,211	126,104	105,994	90,971	65,997	59,975
Miscellaneous	4,296	4,634	3,463	2,261	1,986	1,716	1,840	1,494	1,364	1,401
Total	491,980	480,059	455,000	430,822	358,699	322,708	307,731	246,346	151,793	135,697
Operation & Maintenance Expenses Charged to Operations (in thousands of dollars)	287,269	273,646	260,955	259,233	236,389	218,976	226,320	187,890	109,997	103,928
Payments in Lieu of Taxes Charged to Operations (in thousands of dollars)	3,055	2,390	2,176	1,920	1,750	981	565	966	928	726
Payments to the State Charged to Reinvested Earnings (in thousands of dollars)	3,003	2,003	1,901	1,700	1,600	1,500	1,400	1,300	1,300	1,200
Net Operating Revenues Available For Debt Service (in thousands of dollars)	227,436	229,564	219,072	195,899	136,186	118,230	94,219	66,503	46,732	35,958
Reinvested Earnings* (in thousands of dollars)	39,129	40,290	30,106	45,948	50,515	41,057	53,131	29,330	21,406	10,791
Debt Service Coverage:										
Expansion Bonds	1.57	1.56	1.47	1.61	1.83	1.69	2.18	1.90	2.41	2.12
Priority Obligation & Expansion Bonds	1.55	1.54	1.46	1.59	1.78	1.65	2.07	1.79	2.14	1.88
Kilowatthour Sales (in thousands)										
Residential	830,620	804,154	720,438	672,865	646,467	559,929	541,522	536,461	472,495	443,186
Commercial	940,941	892,123	812,520	738,430	688,748	595,724	569,474	549,737	511,726	506,243
Industrial	4,928,910	4,716,882	4,557,796	4,501,626	4,232,994	3,940,370	4,049,632	3,952,408	1,890,415	1,788,087
Military	432,504	440,978	443,064	405,802	392,309	373,403	350,127	343,258	306,582	316,537
Municipal	31,639	28,651	30,500	29,571	25,448	20,236	17,841	17,572	17,506	16,966
Wholesale	4,912,084**	4,729,540	4,214,322	3,878,087	3,798,454	3,422,275	3,351,388	3,470,042	3,099,574	2,881,781
Total	12,076,698	11,612,328	10,778,640	10,226,381	9,784,420	8,911,937	8,879,984	8,869,478	6,298,298	5,952,800
Number of Customers (at year end)										
Residential	70,461	67,435	63,895	59,755	55,610	50,255	46,310	43,462	40,053	38,058
Commercial	14,627	14,210	13,733	13,553	11,601	10,583	10,129	9,754	9,236	8,859
Industrial	26	27	26	26	26	25	25	25	24	21
Military	3	3	3	3	3	3	3	3	3	3
Municipal	305	305	372	342	329	300	224	216	212	207
Wholesale	4	3	3	3	3	3	3	3	3	3
Total	85,426	81,983	78,032	73,682	67,572	61,169	56,694	53,463	49,531	47,151
Residential Statistics (average)										
Kilowatthour Consumption/ Customer	12,013	12,195	11,591	11,696	12,240	11,708	12,093	12,875	12,151	12,097
Cents/Kilowatthour	6.46	6.52	6.46	6.15	5.50	5.02	5.01	4.09	3.73	3.44
Generating Capability (year end) (megawatts)	2,780	2,780	2,759	2,764	2,764	2,265	1,965	1,965	1,736	1,456
Power Requirements and Supply (kilowatthours in millions)										
Generation-										
Hydro	342	519	413	485	628	694	522	414	824	680
Steam	9,808	9,455	8,472	8,442	7,287	7,840	8,492	8,620	5,800	5,343
Combustion Turbine	1	—	—	1	2	—	18	31	10	6
Nuclear	2,327	1,744	1,871	1,516	1,931	494	—	—	—	—
Total	12,478	11,718	10,756	10,444	9,848	9,028	9,032	9,065	6,634	6,029
Purchases, Net Interchanges, Etc.	60	229	353	227	355	333	380	371	193	429
Total	12,538	11,947	11,109	10,671	10,203	9,361	9,412	9,436	6,827	6,458
Calendar Year	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
Territorial Peak Loads (megawatts)	2,123	2,123	2,006	1,824	1,810	1,685	1,754	1,554	1,352	1,231

*Reinvested earnings referred to above and on pages 41, 42, and 43 reflect revenue available to meet Santee Cooper's Bond Indenture and Resolution requirements.

**Beginning in Fiscal Year 1988 kwh sales to Central include line losses.

FINANCIAL SUMMARY

Since Santee Cooper was created in 1934, a net amount of \$2,229,116,000 has been invested in its production, transmission, distribution, and general plant facilities. These capital additions have been financed through reinvested earnings, issuance of electric revenue bonds and notes, lease contracts, and a federal grant-in-aid of \$34,438,000.

Santee Cooper's net earnings before taxes since the first power was generated in 1942 total \$478,916,000. Payments in lieu of taxes have been made to the state of South Carolina totaling \$31,429,000, and to the counties and municipalities within our service territory totaling \$19,324,000. The remaining net earnings of \$428,163,000 have been reinvested in the Authority.

Revenue bonds totaling \$3,494,899,000 have been issued since the creation of Santee Cooper. Bonds which were originally issued in 1949, 1971, 1976, and 1981 Series B have been advanced refunded, defeased, and are no longer outstanding with the exception of the 1981 Series B bonds. Also, portions of the 1980 Series A, 1981 Series A & C, 1982 Series A & B, 1982 Refunding, and 1985 Refunding have been advanced refunded and defeased, but are still outstanding.

All refunding bonds had an outstanding balance of \$1,399,434,000 at the time they were refunded. Principal payments on all bond issues, including the issues refunded, total \$131,355,000. Outstanding bonds as of June 30, 1988 totaled \$1,964,110,000. The average annual interest cost on these bonds is 6.9 percent.

As of June 30, 1988, general improvement funds amounted to \$48,131,562 in addition to debt reserve, debt service, interest, and special funds which totaled \$257,797,000.

COMPARATIVE HIGHLIGHTS

FISCAL YEAR	1988	1987	%CHANGE
-------------	------	------	---------

Financial (Thousands of dollars)

Total Revenues & Income	516,599	505,340	2.2
Total Expenses & Interest Charges	504,902	494,289	2.1
Other Deductions - Net	0	[318]	-100.0
Costs to be Recovered from Future Revenue	27,432	28,921	-5.1
Reinvested Earnings	39,129	40,290	-2.9
Debt Service Coverage - Priority & Expansion Bonds	1.55	1.54	0.6
Debt / Equity Ratio	80 / 20	81 / 19	-1.2

Statistical

Retail Customers Served	85,393	81,950	4.2
Average Annual Residential Consumption (KWH)	12,013	12,195	-1.5
Average Residential Cost (Cents per KWH)	6.46	6.52	-0.9
Energy Sales (KWH)	12,076,698	11,514,828	4.9
Territorial Peak Demand (MW)	2,215	2,123	4.3

CALENDAR YEAR	1987	1986	%CHANGE
---------------	------	------	---------

Territorial Peak Demand (MW)	2,123	2,123	0.0
------------------------------	-------	-------	-----

1988 EXECUTIVE SUMMARY

We are pleased to report that Santee Cooper had a very productive, very successful year, in spite of some of the most serious challenges we have faced in our 50-year history.

Santee Cooper has been able to maintain its corporate commitments to its customers, employees, and bondholders, as well as to the communities it serves, the environment, and the people of South Carolina.

The most serious challenge this year, of course, was the legislation which proposed the sale of Santee Cooper. That bill was fortunately rejected after the Budget and Control Board gathered facts and figures that showed legislators the economic value of Santee Cooper to the people of South Carolina. Lower power rates, more jobs, and increased economic development were the factors which convinced our political leadership that continued operation of Santee Cooper is in the best interest of the state.

Looking at the bottom line, Santee Cooper experienced one of its best financial years. Even after rate relief of \$7.5 million to Central Electric Power Cooperative, reinvested earnings were only slightly under the previous year.

Over on the production side, kilowatthour sales of electricity increased by about 5 percent and our electric revenues were up about 2 percent. These increases occurred primarily because of weather conditions, steady customer growth, and a return to full production output by Macalloy, our third largest industrial customer.

In terms of energy consumption, this represents a 3 percent increase by residential customers, 5 percent by commercial customers, 4 percent by industrial customers, and 6 percent by Central Electric Power Cooperative and the municipalities of Bamberg and Georgetown.

Of particular significance also is the continued full production output and full employment by Alumax, Santee Cooper's largest industrial customer.

Growth in our number of customers was also steady. A total of 3,026 residential and 417 commercial customers were added, which represents increases of 4 and 3 percent, respectively.

All of this is a reflection of the stability and continued economic growth within the areas served directly by Santee Cooper and by the 15 electric cooperatives which are members of Central.

In the area of economic development, putting together a joint program with Central Electric Power Cooperative continued. No longer are we competing with our electric cooperative customers, but we are now operating as a unified team, working to attract the new industries and new jobs needed for South Carolina.

We are pleased that Santee Cooper has been able to maintain a stable rate base, allowing our customers to benefit by having the lowest costs for electricity in the state. While this is an economic benefit to them, it is also a tribute to the dedication of our employees and the effective management of our resources. It is significant to note that we have not had a rate increase since 1985 and do not project having to make any adjustments before 1991.

Our financial rating during the year also maintained its strength in spite of the challenge faced within the South Carolina Legislature. Both Moody's and Standard and

Poor's reaffirmed their confidence in Santee Cooper by maintaining A1, A+ bond ratings.

An important factor in maintaining these ratings has been Santee Cooper's consistent financial success during the past several years. Two primary measurements of this success are debt service coverage and debt equity ratio. Both of these have shown improvement during the past year.

Beyond the measurements of revenue, customers served, bond ratings, and reinvested earnings, some major progress and improvements occurred during the past year.

In support of conservation, the electric cooperatives and Santee Cooper expanded our "Good Cents" program, which advises and assists customers in their efficient use of electricity. It is receiving excellent support from architects, builders, and home buyers.

In cooperation with the South Carolina Department of Parks, Recreation & Tourism, work began on one of the historical treasures of South Carolina--the restoration of the Moncks Corner section of the canal built in the 1790s to connect the Santee and Cooper rivers. This park, with its boardwalks and nature trails, should be open to the public within the coming year.

We may now have at least a partial solution to our "weeds in the lake" problem through the use of fish from China called the White Amur. These fish grow up to 40 pounds in size and daily eat up to four times their body weight. Last year approval was obtained to release sterile Amur in our lakes, which will begin next spring.

Our electrical system reliability and reinforcement was improved significantly during the past year. To provide a strong source of power near the heavily loaded Hilton Head area, a 230 kV transmission line was constructed across the Savannah River to a 500/230 kV Santee Cooper-owned substation in Georgia, which gave Santee Cooper another tie to the Southern Company.

Also completed was the upgrading of the 46 kV system in the Aiken area to 115 kV, improving service reliability of the cooperative substations in that area.

In our Horry-Georgetown Division, 12,000-volt feeders were installed to provide improved service, and our tree-trimming operations were expanded to reduce storm outages caused by downed trees and limbs.

Santee Cooper's economic development efforts were especially successful last year with the addition of two new industrial customers, the new Union Carbide plant in Camden and Allied Signal, the first customer in the Atlantic Center, our new business and industrial park near Conway. The national publication, *Site Selection Handbook*, named Atlantic Center one of the top ten economic development projects of 1987.

Work began on reinforcing the Pinopolis West Dam against damage due to potential earthquakes.

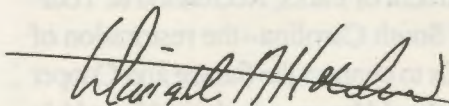
We are pleased to report that without reservation or equivocation, Santee Cooper's financial condition is better than it has ever been. For the past 12 years, Santee Cooper's performance has been better than the previous year. And, factoring in the rate relief given to the electric cooperatives, this year is no exception. We're also confident enough in our abilities to forecast that next year's progress will be even better.

This string of successes is not happenstance or due to serendipity. In our opinion, it's due to on-target planning coupled with the efforts of a dedicated high caliber work force committed to bringing those plans to successful completion.

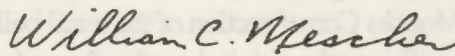
It is also the product of a board willing to support and contribute to a corporate culture in which innovation and change are not just tolerated, but expected.

This resourcefulness has paid off for Santee Cooper, its customers, and the people of South Carolina. That's evident when one observes growth and development occurring in our service area, the reliability of our electric system, and our low rates. Also significant are the awards and recognitions won, and especially, the status which Santee Cooper and its personnel hold all across the country.

A growing and healthy customer base, outstanding employee performance, strong and effective management, and the professional leadership and support of our board have made Santee Cooper what it is today--the fourth largest public power utility and one of the best electric utilities in the country.



Dwight A. Holder
Chairman of the Board



William C. Mescher
President and
Chief Executive Officer

ENERGY SALES

At the end of the fiscal year, Santee Cooper was serving 85,393 residential, commercial, and other retail customers located in Berkeley, Horry, and Georgetown counties. This was an increase of 3,443 or 4.2 percent over the previous year. Of this increase, 3,026 were residential and 417 were commercial. This compares with growth in 1987 of 3,540 residential and 410 commercial.

Sales to these retail customers were 1,803 gigawatthours, up 4.5 percent over the previous year. This compares to last year's growth in energy sales of 10.3 percent.

The average annual consumption of electricity by Santee Cooper residential customers decreased to 12,013 kilowatthours, 1.5 percent less than the previous year and 28.9 percent greater than the national average.

The average cost per kilowatthour for Santee Cooper residential customers was 6.46 cents, .9 percent less than the previous year, and 12.8 percent lower than the national average.

The average cost of power for Santee Cooper commercial customers was 5.68 cents per kilowatthour, down .7 percent from 1987 and 20.0 percent lower than the national average.

Industrial sales were 4,929 gigawatthours, up 4.50 percent over the previous year. The average cost of power to industrial customers was 3.06 cents per kilowatthour, 3.7 percent greater than the previous year and 36.1 percent lower than the national average.

Sales to U.S. Air Force bases at Charleston and Myrtle Beach and to the Charleston Naval Station decreased 1.9 percent from 441 gigawatthours to 433 gigawatthours.

Sales through Central Electric Power Cooperative, Inc. to its 15 member co-ops increased 6.0 percent to 4,762 gigawatthours. Central is Santee Cooper's largest single customer. The electric cooperatives distribute power to more than 300,000 customers in 35 counties of the state.

Sales to the municipalities of Bamberg and Georgetown increased 2.3 percent.

DISTRIBUTION

Santee Cooper provided distribution and retail service to 85,393 customers in Berkeley, Horry, and Georgetown counties, compared to last year's total of 81,950, for an increase of 4.2 percent. Energy sales for the residential customers were 1,803,200 megawatthours with revenue of \$109,011,874 for the year.

The Horry-Georgetown Division serves the municipalities of Myrtle Beach, Conway, Loris, North Myrtle Beach, Surfside Beach, Pawleys Island, Atlantic Beach, and Briarcliffe Acres, along with the unincorporated areas of Arcadia Shores, Garden City, Murrells Inlet, and Waccamaw Neck.

The Horry-Georgetown Division provided new service to 892 single family homes, 1,036 condominium units, 131 mobile homes and lots, five hotels, four shopping centers, one school, four churches, and 212 commercial customers. Underground facilities were installed to provide future service to 1,300 residential single family homes and 210 mobile homes. Substation facilities and distribution circuits were installed to provide 10 new main feeders to meet system growth.

The installation of the Supervisory Control and Data Acquisition (SCADA) master station was completed, which allows 20 of the division's 40 substations to be monitored and controlled remotely.

The division continues to digitize the computer-based mapping of substations, which improves access, retrieval, and storage of mapping data. This data base is now over 600 megabytes, representing approximately 50 percent of division service area.

In addition, the division uses a new computerized weather indexing system to monitor approaching storms. This system improves the line crews' ability to restore service quickly.

Continued rapid growth in the division required additional office space. A new retail office in Garden City opened in mid-summer. The 4,125 square-foot facility includes customer service, area engineering, and energy management offices. A 3,600 square-foot operations center for line crew personnel and a materials warehouse were also completed at the Garden City site.

Santee Cooper, along with Berkeley and Horry Electric Cooperatives, began participating in the Gatekeeper Program. Meter readers, cashiers, customer service representatives, and other employees who have day-to-day contact with customers were trained to recognize certain danger signals in the elderly and contact the appropriate community agency.

The Berkeley District

The Berkeley District provided service to 106 residential lots in four new Berkeley County subdivisions: Limerick Woods, Sterling Oaks, Roosevelt Estates, and Tolly Subdivision. Also, service was provided to 38 new apartment units, and underground service to three new commercial customers: Wal-Mart, Hardee's, and Cumbie Plaza. Service was supplied to the Old Santee Canal State Park, currently under construction, with 5,000 feet of underground primary cable and four pad mount transformers.

ENERGY MANAGEMENT

Good Cents, a national program for energy-efficient, all-electric homes, is a commitment to help Santee Cooper customers find ways to more efficiently utilize electric energy while focusing on an overall corporate demand-side planning strategy.

The Good Cents New Home Program award was given to 120 homes which were designed and built so that owners use less energy and spend less money for heating and cooling.

In addition, the second phase of the Good Cents Program, the Good Cents Improved Home Program, was developed, with reduced rates effective July 1988.

Santee Cooper and 14 cooperatives and municipalities are participating in the Good Cents Program. Santee Cooper manages the Good Cents standards and rates associated with this program.

Good Cents residential loans for energy-efficient home improvements were \$367,294 including \$356,894 for installation of new electric heat pumps. Twenty-four fossil fuel and 26 electric resistance heating systems were converted to heat pumps. The

total amount loaned since the initiation of the program is \$1,663,645.

Residential customers began receiving direct mail notification of the availability of free Residential Conservation Service (RCS) energy audits. The audits provide customers with individualized information on their homes' energy requirements and recommendations for improvements.

Energy audits were provided for 576 residential and 68 commercial customers. Load calculations and thermal design analyses for sizing electric heating and cooling systems were provided for 624 residential customers and 99 commercial customers.

Santee Cooper's Energy Education Program began a national electrical safety promotion, "Louie, the Lightning Bug," during the school year. The program was presented to more than 9,500 students in 27 schools in Berkeley, Horry, and Georgetown counties.

More than 40,000 audio-visual and printed energy education materials were provided to students and teachers in our service area.

The Energy Management and Rates Divisions received the South Carolina Energy Achievement Award for development of a state-of-the-art Load and Marketing Research program.

GENERATION AND LOAD GROWTH

Santee Cooper facilities, which include one-third ownership of the V.C. Summer Nuclear Station, generated 12,477,787 net megawatthours of electricity this year. This was an increase of 759,351 megawatthours or 6.5 percent over last year.

Of the total power generated, 78.6 percent was produced using coal, 18.7 percent by nuclear, and 2.7 percent by hydroelectric. The peak hourly demand for the year was 2,215 megawatts, which occurred on June 23. This was an increase of 4.3 percent over FY 87.

NUCLEAR OPERATIONS

The V.C. Summer Nuclear Station, an 885 megawatt nuclear plant jointly-owned with South Carolina Electric & Gas Company, continued to be an excellent performer in FY 88 with a capacity factor of 90 percent. During the year this unit received top performance ratings from both the Nuclear Regulatory Commission and the Institute of Nuclear Power Operations.

For FY 88, Santee Cooper's one-third share of the Summer Station provided over 2.3 billion kilowatthours of electricity for Santee Cooper customers, or approximately 18.7 percent of the company's total electrical sales.

The station's next refueling outage is scheduled for fall 1988. There was no refueling outage during FY 88.

SYSTEM PLANNING

System Planning developed plans to construct additional transmission facilities and expand the existing 230 kV system in the Horry-Georgetown area to meet customer needs.

ENGINEERING AND CONSTRUCTION MANAGEMENT

Following success of a pilot project at Cross Station last year, 11 state-of-the-art electronic coal scales were installed at Cross, Jefferies, and Winyah Stations to reduce maintenance costs and increase reliability and accuracy of the weighing process. Significant improvement is expected for fuel stockpile accounting.

A dry fly ash transport system was added for Winyah Unit 1, allowing it to make use of the existing Units 3 and 4 storage and loading facilities. This resulted in the sale of the high quality fly ash produced by Unit 1.

To improve heat rate and prevent generation curtailment during the summer months at Cross Station, major modifications to the cooling tower were completed during a planned three-week spring outage. The concrete tower structure was completely emptied, and 65 truck loads of new fill material, plus new nozzles and drift eliminators, were installed.

Also at Cross, modifications were made to the isolation dampers of the flue gas desulfurization system (FGD) to permit mist eliminator cleaning without reducing generation.

In addition, steam generator reheater tube failures were traced to a design error by the boiler vendor. Twenty-five percent of the finishing reheater assemblies were modified and all of the superheater girdling tubes were removed, all under warranty. Flow baffles were installed by the contractor to achieve a more uniform flue gas through the furnace.

Following last year's successful pilot project with Jefferies Unit 4, Unit 3 was equipped with two 1,500 horsepower induced draft fan motors with adjustable speed drive (ASD) units. This eliminated fan vibration problems and lowered electric power consumption. ASDs will be installed on large electric motors at other stations.

Also at Jefferies, improvements were made to the coal yard drainage system, and a boiler water clarification system was purchased.

Special project activities included continued work with local authorities on a regional water system in Berkeley and Dorchester counties and a preliminary review of a waste-to-energy facility in Horry County.

PERFORMANCE AND ENVIRONMENTAL SERVICES

The Performance Services group conducted thermodynamic performance tests on five generating units; operating heat rate tests on nine generating units; and turbine enthalpy tests on several generating units. Component tests were conducted on equipment such as air heaters, boilers, and cooling towers.

A new computer modeling program was used to analyze the generating unit thermodynamic system for efficiency. The extensive test results were published in final reports to document unit heat rate. The information was used to improve unit efficiency, predict and plan unit maintenance, determine which units are the most economical to operate, and calculate precise costs for generating electricity.

The Environmental section performed numerous analytical tests, such as boiler gas tests for particulate matter, sulfur dioxide, and nitrous oxide emissions. Tests were also conducted to determine pollutant levels in wastewater, sediments, soils, hazardous

wastes, solid wastes, used oil, mineral oil, and drinking water. Environmental seminars were conducted for several employee groups to educate them on state and federal regulations and on how they impact operations.

The community right-to-know and chemical inventory programs are now in place, and administration continues in the following areas: PCB Management, Waste Oil Incineration, Solvent and Paint Waste Recycling and Disposal, Underground Storage Tank Monitoring, Ground Water Monitoring, and Spill Control and Countermeasures.

PRODUCTION

Santee Cooper's generating stations performance improved both in efficiency and availability last year. A record was set with eight of the coal-fired units providing over 90 percent availability. The national average is approximately 83 percent. Santee Cooper's efficiency improved 1.8 percent, which represents \$3,175,949 in coal savings.

Grainger Station won the Production Operations Goal Program competition, winning six of the seven goals. The efficiency of Grainger improved 2.4 percent.

This year's sales of fly ash, one of the by-products of generation, were \$43,209. The future marketing of fly ash is being expanded by installing additional equipment and making more ash available for sale at Winyah Station. An ongoing experimental project, using fly ash for highway road beds, is being conducted with Horry County.

All generating stations, except V.C. Summer, had annual planned maintenance outages, with Jefferies Station requiring the most major work. Jefferies was totally repainted. A precipitator for Unit 4 was completely rebuilt, and the coal silos were lined. Steam generator superheater tubes at Unit 2 were replaced.

POWER GENERATING STATIONS

Jefferies Hydro Generating Station

Location:	Pinopolis, SC
Fuel Type:	Hydroelectric
Generating Capability:	128 megawatts
Construction Cost (excluding interest):	\$58.6 million / \$458 per kw
Began Commercial Operation:	1942
FY 1988 Generation:	196 million kwh
Fuel Consumption - FY 1988:	none
Fuel Cost - FY 1988:	none
Fuel cost per kwh:	none

Principal Features: Jefferies Hydro has four turbine generators which were initial units for the Santee Cooper Hydro Electric and Navigation System in 1942. Powerhouse is located at base of Lake Moultrie, with water level 75 feet above Tail Race Canal. Single-lift lock provides boat passage between Cooper River and Santee Cooper lakes. Water source is cumulation of rivers and streams draining 15,000 square mile Santee River Basin Watershed, which extends through the central and upper part of the state into western North Carolina.

Grainger Steam Generating Station

Location:	Conway, SC
Fuel Type:	Coal
Generating Capability:	Units 1 & 2 - 170 megawatts
Construction Cost (excluding interest):	\$ 29.2 million / \$172 per kw
Began Commercial Operation:	1966
FY 1988 Generation:	340 million kwh
Fuel Consumption - FY 1988:	143,352 tons of coal
Fuel Cost - FY 1988:	\$5,776,988
Fuel cost per kwh:	1.700 cents

Principal Features: Grainger Steam Generating Station was constructed by and is owned by Central Electric Power Cooperative, Inc. with funds received through a Rural Electrification Administration loan. The plant is operated and maintained by Santee Cooper, which is making payments on the long-term REA loan. When the loan is paid off, Santee Cooper will maintain ownership of the station.

Santee Spillway Generating Unit

Location:	Pineville, SC
Fuel Type:	Hydroelectric
Generating Capability:	2 megawatts
Construction Cost (excluding interest):	\$.04 million
Began Commercial Operation:	1950
FY 1988 Generation:	13 million kwh
Fuel Consumption - FY 1988:	none
Fuel Cost - FY 1988:	none
Fuel cost per kwh:	none

Principal Features: Hydro unit with small turbine generator was installed to generate power using the required discharge of 515 cfs into Santee River. Unit is operated remotely from Jefferies Steam Generating Station. Spillway is used in utility's flood control program for releases of water down Santee River.

Hilton Head Combustion Turbines

Location:	Hilton Head Island, SC
Fuel Type:	Oil
Generating Capability:	Unit 1 - 20 megawatts Unit 2 - 20 megawatts Unit 3 - 57 megawatts
Construction Cost (excluding interest):	Unit 1 - \$ 2.7 million /\$135 per kw Unit 2 - \$ 2.2 million /\$110 per kw Unit 3 - \$ 9.8 million /\$172 per kw
Began Commercial Operation:	Unit 1 - 1973 Unit 2 - 1974 Unit 3 - 1979
FY 1988 Generation:	577,000 kwh
Fuel Consumption - FY 1988:	132,219 gallons
Fuel Cost - FY 1988:	\$118,944
Fuel cost per kwh:	20.614 cents

Principal Features: Hilton Head Combustion Turbines were added to system to assist in meeting growing peak load demand, particularly on most southern end of Santee Cooper's transmission system. Units also provide 97 megawatts of backup emergency generation for the barrier island resort community if it should be cut off from the mainland power supply by a hurricane or other severe weather.

Jefferies Steam Generating Station

Location:	Pinopolis, SC
Fuel Type:	Units 1 & 2 - Oil Units 3 & 4 - Coal
Generating Capability:	Units 1 & 2 - 92 megawatts Units 3 & 4 - 306 megawatts
Construction Cost (excluding interest):	Units 1 & 2 - \$ 15.7 million / \$171 per kw Units 3 & 4 - \$ 54.8 million / \$179 per kw
Began Commercial Operation:	Units 1 & 2 - 1954 Units 3 & 4 - 1970
FY 1988 Generation:	Units 1 & 2 - none Units 3 & 4 - 833 million kwh
Fuel Consumption - FY 1988:	Units 1 & 2 - 1,562 BBL Units 3 & 4 - 364,144 tons of coal
Fuel Cost - FY 1988:	Units 1 & 2 - \$49,056 Units 3 & 4 - \$15,402,059
Fuel cost per kwh:	Units 1 & 2 - NA Units 3 & 4 - 1.908 cents

Principal Features: Jefferies Steam Units 1 and 2 are oil-fired turbine generators. Installed when oil was the most economic source of fuel, these units are used basically on a standby basis and for peak load generation. Units 3 and 4 were initially oil-fired and later converted to coal to take advantage of the more economic fuel.

Winyah Steam Generating Station

Location:	Georgetown, SC
Fuel Type:	Coal
Generating Capability:	Units 1, 2, 3, & 4 - 270 megawatts each
Construction Cost (excluding interest):	Unit 1 - \$ 62.4 million / \$231 per kw Unit 2 - \$ 73.2 million / \$271 per kw Unit 3 - \$ 118.0 million / \$437 per kw Unit 4 - \$ 110.3 million / \$409 per kw
Began Commercial Operation:	Unit 1 - 1975 Unit 2 - 1977 Unit 3 - 1980 Unit 4 - 1981
FY 1988 Generation:	Unit 1 - 1.7 billion kwh Unit 2 - 1.6 billion kwh Unit 3 - 1.0 billion kwh Unit 4 - 884 million kwh
Fuel Consumption - FY 1988:	Unit 1 - 630,795 tons of coal Unit 2 - 656,892 tons of coal Unit 3 - 422,770 tons of coal Unit 4 - 364,951 tons of coal
Fuel Cost - FY 1988:	Unit 1 - \$28,303,076 Unit 2 - \$29,463,390 Unit 3 - \$19,061,731 Unit 4 - \$16,376,369
Fuel cost per kwh:	Unit 1 - 1.708 cents Unit 2 - 1.791 cents Unit 3 - 1.870 cents Unit 4 - 1.853 cents

Principal Features: Winyah is Santee Cooper's largest generating station. Units were constructed during a half decade of OPEC-driven high inflation, rising construction costs, and the fastest growing period of demand and energy growth in the company's history.

Myrtle Beach Combustion Turbines

Location:	Myrtle Beach, SC
Fuel Type:	Oil
Generating Capability:	Units 1 & 2 - 20 megawatts Units 3 & 4 - 40 megawatts Unit 5 - 30 megawatts
Construction Cost (excluding interest):	Units 1 & 2 - \$ 2.7 million/\$135 per kw Units 3 & 4 - \$ 3.9 million/\$98 per kw Unit 5 - \$ 2.7 million/\$90 per kw
Began Commercial Operation:	Units 1 & 2 - 1962 Units 3 & 4 - 1972 Unit 5 - 1976
FY 1988 Generation:	626,000 kwh
Fuel Consumption - FY 1988:	149,040 gallons of oil
Fuel Cost - FY 1988:	\$113,428
Fuel cost per kwh:	18.119 cents

Principal Features: Myrtle Beach combustion turbines were installed to help meet extraordinary peak demands resulting primarily from summertime population explosion along the Grand Strand resort area. Units are presently used for peak load generation.

Summer Nuclear Generating Station

Location:	Jenkinsville, SC
Fuel Type:	Nuclear
Generating Capability:	295 megawatts (1/3 of 885 megawatts)
Construction Cost (excluding interest):	\$336.0 million/\$1,139 per kw
Began Commercial Operation:	1983
FY 1988 Generation:	2.3 billion kwh
Fuel Cost - FY 1988:	\$11,179,801
Fuel cost per kwh:	.480 cents

Principal Features: Santee Cooper has one-third share of the plant which is jointly-owned with South Carolina Electric and Gas Company. SCE&G operates and maintains the plant. When the unit was constructed, it was the first joint nuclear project in the Southeast between public and private utilities.

Cross Steam Generating Station

Location:	Cross, SC
Fuel Type:	Coal
Generating Capability:	520 megawatts
Construction Cost (excluding interest):	\$363.7 million / \$699 per kw
Began Commercial Operation:	1984
FY 1988 Generation:	3.4 billion kwh
Fuel Consumption - FY 1988:	1,306,090 tons of coal
Fuel Cost - FY 1988:	\$63,180,844
Fuel cost per kwh:	1.842 cents

Principal Features: Cross Station has the largest single unit in Santee Cooper's generating system. It is located between Lakes Marion and Moultrie. A unique feature is the adjoining Aquaculture Center with a two-and-one-half acre greenhouse which operates using residual heat from the station's cooling cycle.

St. Stephen Hydro Generating Station

Location:	St. Stephen, SC
Fuel Type:	Hydroelectric
Generating Capability:	84 megawatts
Construction Cost (excluding interest):	\$63.7 million / \$758 per kw
Began Commercial Operation:	1985
FY 1988 Generation:	133 million kwh
Fuel Consumption - FY 1988:	none
Fuel Cost - FY 1988:	NA
Generation cost per kwh:	NA

Principal Features: St. Stephen Power Plant was constructed and is maintained by the U.S. Army Corps of Engineers as part of the Cooper River Rediversion Project. It is operated remotely by Santee Cooper from the energy control center in Moncks Corner. The Rediversion Project was designed to reduce the silting of Charleston Harbor. With its operation, water previously discharged through the generating turbines at the Pinopolis Power House is rediverted through the St. Stephen facility and discharged into the Santee River.

POWER SUPPLY

Power Supply developed a unit commitment and interchange evaluation program which is used daily to determine the best combination of generating units on-line and power interchange transactions with other utilities.

Santee Cooper's Supervisory Control and Data Acquisition (SCADA) system was expanded with remote terminal units added in five major substations during the year. These installations significantly increased the capability to directly monitor and control Santee Cooper's power system from the Energy Control Center.

A contract was signed with North Carolina Eastern Municipal Power Agency for capacity and energy sales, and the first transaction was made on December 11, 1987. A total of 6,681 megawatthours of energy was sold during the year with a maximum contract demand of 23 MW.

System Control purchased 142,027 megawatthours of power from the interconnected utilities in FY 88 to displace higher cost generation for a savings of \$375,000. Also, 371,033 megawatthours of energy were sold to the interconnected utilities for a total of \$10,140,000.

DESIGN ENGINEERING

Design work progressed on a system-wide 230 kV transmission line overlay to support the existing 69 and 115 kV transmission system.

Design of a new 115 kV system will increase reliability and improve capacity by upgrading the existing 46 kV system in the Aiken area.

Additionally, design was completed on four major transmission line projects and seven major substation projects involving 20 substations. Phases I and II of a four-phase project for the inventory and mapping of the distribution system was completed.

Design Engineering completed 12 Communication and SCADA projects, which include the design and installation of a weather monitoring system to inform personnel of existing and approaching climatic conditions. Early awareness could have an effect on the reliability of our system.

Flood zone mapping for the Santee River, extending from Lake Marion to the Atlantic Ocean, was developed and coordinated with Design Engineering. The digitized mapping was loaded onto the computerized mapping system. This will greatly influence the development of the area by showing various stages of flooding in the Santee River swamp.

GENERAL CONSTRUCTION

Santee Cooper's 42 miles of dams and dikes and its 56-mile-long navigation channel were maintained by work forces in General Construction who removed floatage and repaired the structures, channel markers, and buoys. General Construction also maintained roads and drainages for the 52 subdivisions owned by Santee Cooper.

Work continued on a massive clearing operation below the Santee Dam to improve inspections and control drainage. Design work began on rebuilding a portion of the Santee Spillway to ensure its continued high safety standards.

The U.S. Army Corps of Engineers has received \$24.3 million to date in federal

funding and began work to strengthen portions of the West Pinopolis Dam. This work will increase the dam's ability to withstand an earthquake equal to the postulated force of the Great Charleston Earthquake of 1886.

The Comprehensive Emergency Action Plan for Dam Failure is continually reviewed to check Santee Cooper's responsiveness to an emergency. A second successful full-scale test of the plan was completed in March.

General Construction also provided clearing, grading, site preparation, foundation, and carpentry work for system expansion.

TRANSMISSION OPERATIONS

More than 12 billion kilowatthours of electricity were delivered to about 386,000 customers through Santee Cooper's transmission system. This consists of 3,412 miles of line and 58 substations and switching stations with voltages ranging from 34,000 to 230,000 volts.

Power was supplied to 85,393 retail customers, two municipalities, three military installations, 26 large industrial customers, and 300,000 customers served by 15 of the state's 20 electric cooperatives through 224 delivery points.

Over 1,200 miles of transmission line rights-of-way were maintained, and a cooperative erosion control policy was begun during the year. Santee Cooper worked with landowners and transmission engineers to prevent erosion problems rather than trying to correct a situation after erosion was in progress. This program has improved landowner relations for all maintenance operations.

PROJECT MANAGEMENT

Project engineering, budget control, construction management, and material coordination were provided for current substation and transmission line projects.

Transmission line routing and substation site selection were completed for the Pawleys Island and Red Bluff projects, which will upgrade the existing 115 kV service to this rapidly growing area.

Also, substation site selection and transmission line routing were completed for the Charleston Naval Shipyard.

Two Aiken area projects, route selection for the 25-mile Aiken-Batesburg 230 kV transmission line and the conversion of the Northern 46 kV loop to 115 kV, were completed to improve service to area industries and Aiken Electric Cooperative.

RELIABILITY

System reliability was improved with the addition of a new interconnection with the Southern Company at the McIntosh 230 kV station. Santee Cooper maintains other interconnections with the Southern Company and the Southeastern Power Administration at the R.B. Russell Dam; with South Carolina Electric & Gas at Bushy Park, North Charleston, St. George, Mateeba, Columbia, and the V.C. Summer Nuclear Station; with Southeastern Power Administration, Duke Power Company, and the Southern Company at Clarks Hill; and with Carolina Power & Light at Darlington, Hemingway, Kingstree, Lugoff, and Darlington County Plant.

CORPORATE COMMUNICATIONS

"Public Power Owned by the People of South Carolina," Santee Cooper's new corporate identity line, was introduced to communicate the utility's relationship with citizens of the state.

Telling the story of Santee Cooper's history, service to its customers, and value to the people of South Carolina was the primary commitment for Corporate Communications in 1987.

Primary emphasis on telling the Santee Cooper story included participation with a number of electric cooperatives and municipal customers in National Public Power Week. Proclamations recognizing public power as an important national and local resource were signed by the governor and several mayors in the Santee Cooper service area. Corporate Communications published *A Salute to Public Power in South Carolina*, a special tabloid newspaper section featuring the role of publicly-owned utilities in the state.

Information was also produced in the form of legislative briefings, position papers, slide presentations, and two major publications. *Pushing Back the Darkness* is a booklet that chronicles Santee Cooper's achievement in bringing electric power and economic development to South Carolina. *Public Power Owned by the People of South Carolina* is a brochure which explains the company's role as a state-owned power resource.

Santee Cooper's annual report earned a silver award in annual competitions sponsored by the Advertising Federation of Charleston, and, for the fifth time in ten years, the report placed first in American Public Power Association competition.

MARKETING

As a result of the redirection of Santee Cooper's economic development campaign in FY 88, the Industrial Customer Association was established. This association, consisting of the 25 existing Santee Cooper industrial customers, will provide opportunities for Santee Cooper to share long-range planning information to assist members with their future plans.

Also, work continued on the 272-acre Atlantic Center for Business and Industry, a joint economic development effort by Santee Cooper and Horry County. The first tenant of the mixed-use, full-service park was Allied Signal, an international advanced technology company that purchased two buildings and 40 acres of land. Allied Signal will employ some 125 workers at the amorphous metal casting facility. Capital investment is estimated near \$30 million, with full production scheduled to begin by first quarter, 1989.

Because of the joint development efforts by Santee Cooper and Horry County, *Site Selection Handbook* chose the Atlantic Center for Business and Industry as one of the top ten economic development projects in 1987.

Earlier this year in an effort to strengthen recruitment of industrial clients, Santee Cooper and Central Electric Power Cooperative, Inc. merged their economic development programs, forming the Palmetto Electric Development Corporation. This partnership will work with the South Carolina Development Board to bring new industries to the state. Headquarters will be in the AT&T Capital Center in Columbia, S.C. in offices

adjacent to the State Development Board.

FLOOD CONTROL

As part of its flood control program, Santee Cooper conducts spilling operations when necessary to maintain proper elevations of the Santee Cooper lakes and to reduce flooding of the lower Santee River. Spilling was not required during the past year due to severe drought conditions, adequate capacity for lake storage, and efficient operation of the Jefferies and St. Stephen hydro units.

ENVIRONMENTAL RESOURCES

Santee Cooper received \$413,221 in federal and state funds from the South Carolina Aquatic Plant Management Council for noxious aquatic vegetation management in Lakes Marion and Moultrie during the year. The Council also approved a plan to stock sterile White Amur fish in Lake Marion for aquatic weed control. This three-year project, to begin in spring 1989, will cost approximately \$1.81 million.

MOSQUITO ABATEMENT

Santee Cooper's Mosquito Abatement unit conducted control operations on all project properties in the five-county area surrounding the lake system. More than 148,000 acres were treated by air and ground equipment.

Ten insect genera and 50 species of mosquitoes appear around the lake area. More than 11,000 entomological inspections and surveys were conducted to measure the density of adult and larvae mosquitoes, establish threshold annoyance standards, and determine control operations.

WATER QUALITY MANAGEMENT

The 50 water quality monitoring stations located throughout the reservoir system were sampled regularly for physical, chemical, and biological conditions, with 21,108 laboratory analyses conducted during the year.

Water Quality Management's involvement in special studies during the year included bacterial contamination investigations of surface and ground water at the Lions Beach/Atkins Landing area of Lake Moultrie.

A joint study was also initiated with the U.S. Geological Survey to evaluate the potential impact of the GSX Hazardous Material Disposal Facility near Pinewood on the water quality of Lake Marion.

Aquatic plant control was conducted on 235.6 acres of noxious aquatic vegetation. Herbicides approved by the Environmental Protection Agency were applied by helicopter, airboat, and truck-mount spray units. Eighty-five percent of the program cost was funded by the South Carolina Aquatic Plant Management Council and the U.S. Army Corps of Engineers.

AQUACULTURE

Santee Cooper's Aquaculture Center near Georgetown assisted the University of South Carolina Peace Corps Training Program by providing hands-on experience in fish harvesting, handling, spawning, and rearing.

Over one-half million *Tilapia* fish were cultured at the hatchery site, mainly to stock the Winyah Station cooling reservoir for weed control maintenance. Surplus fish were sold to other utilities and the public.

Approximately 200,000 mosquito fish, *Gambusia affinis*, were supplied to the Mosquito Abatement unit for mosquito larvae control.

Genetic research was conducted to produce sterile White Amur for biological aquatic vegetation management.

HORTICULTURE

Production and income from horticulture operations nearly doubled the previous year's totals, with revenues increasing from \$53,464 to \$103,029. The demand for greenhouse-grown tomatoes exceeded production. Installation of a drainage system under the beds improved production. A total of 210,000 pounds of tomatoes were produced during the year.

PROPERTY MANAGEMENT

The Property Management unit administered leases for approximately 4,300 parcels of land as recreational lots in Santee Cooper subdivisions, marginal lots adjacent to privately-owned subdivisions, commercial lots, gratis leases to public and quasi-public agencies, and various miscellaneous leases for public recreational facilities. Revenues collected from these leases totaled \$655,684 during the year.

Property Management personnel provided maintenance and repairs to 17 public boat launching ramps and parking areas leased to the South Carolina Wildlife and Marine Resources Department.

Construction of docks, boardwalks, observation stations, and walking trails neared completion on the Old Santee Canal State Park, a joint project with the South Carolina Department of Parks, Recreation & Tourism. Opening of the 220-acre historic and environmental park near Santee Cooper's main office complex in Moncks Corner is expected during early spring 1989. The site includes the Stony Landing plantation house which will be restored and the lower portion of the Santee Canal, America's first navigational canal connecting two rivers. A large interpretive building is in the planning and design stage. The proposed Berkeley County Museum will also be located within the park.

Almost 32 acres of land on Lake Marion were leased, at no cost, to Orangeburg County for the development of a recreational park, which will include boat landing facilities, nature trails, and picnic and playground areas for use by the general public.

Almost 18,900 acres of prime wildlife and waterfowl habitat were leased to the South Carolina Wildlife and Marine Resources Department at no cost for use as part of the State's Wildlife Game Management Area Program.

More than 110,000 genetically improved pine seedlings were planted on 156

acres of Santee Cooper lands as part of the reforestation program. Approximately 6,823 acres of woodlands were control-burned to reduce wildfire hazards, improve aesthetics and wildlife habitat, and control undesirable species. Approximately 150 miles of firebreaks were constructed or maintained around young pine tree plantations to protect them from wildfires.

Annual revenues from the sale of forest products and agricultural leases totaled approximately \$180,000.

PROGRAM FOR EMPLOYEE PARTICIPATION

Forty-six Program for Employee Participation (PEP) teams, involving 315 employees, developed recommendations for changes to improve the quality of Santee Cooper's service and performance. Fifty-three projects were completed and approved this year, producing recorded net annual savings of more than \$36,500. A few examples are indicative of the PEP program's spirit of enthusiasm and commitment for making improvements within Santee Cooper:

The Results unit at Jefferies Station identified areas of duplication and functions which are no longer needed or could be reduced in frequency. Benefits included saving approximately 580 annual man-hours or \$9,400 per year.

The Cross E&I Maintenance unit reviewed the process of removing, inspecting, and repairing 480-volt circuit breakers. Using a hydraulic hand truck and other handling equipment reduced this from a four-man job to a two-man job with savings of \$3,900 per year.

A PEP team from the Horry-Georgetown Division Delinquent Accounts unit made improvements to the internal method of handling returned checks due to insufficient funds. Savings are estimated to be around \$4,800 in the first year.

The Accounts Payable PEP team proposed microfilming records to improve that department's filing system. This will net an annual savings of \$3,900.

In FY 88, the number of PEP teams increased 64 percent, and the number of participating employees increased 43 percent. Also, projects completed increased 382 percent.

EMPLOYEE RELATIONS

Close contact with state college, technical school, and high school placement counselors ensured that the needs of the students and Santee Cooper were met. The utility sponsored several cooperative education students and participated in various job fairs and minority recruiting programs.

Employee activities during the year included the annual company picnic, attended by over 1,800 employees, retirees, and their families; golf, basketball, and softball tournaments; and aerobics and weight-watching classes.

Two new cottages for employee use were constructed at Somerset Point, the company's recreation area on Lake Moultrie. A new employee recreation building was constructed at the Winyah Generating Station.

All exempt positions were reevaluated to more accurately reflect current job responsibilities. A preretirement briefing program, covering a multitude of personal and

economic issues for retirees, was conducted for 50 employees and their spouses.

Santee Cooper hired 97 new employees in FY 88, bringing the total number of regular employees to 1,608. One hundred seventy-eight employees were promoted to positions of greater responsibility, and 57 productivity or safety suggestions were submitted through the company's Suggestion Program.

OCCUPATIONAL HEALTH

Comprehensive occupational health/industrial hygiene programs were expanded during the year. These programs include health assessments and preventative care counseling to all employees. First aid and CPR classes were taught to 1,354 employees, and these techniques have been used by personnel to save lives.

The new Hazard Communication Program was developed and implemented as a major responsibility of this unit. This mandated program involves identification and labeling of potentially hazardous chemicals and materials and the training of personnel.

Other training included hearing conservation, prevention of back injuries, respiratory protection, and smoking cessation classes. Achievements during the year also included preemployment screenings, workplace monitoring for possible contaminants, and blood drives.

An Occupational Health nurse assigned to the Horry-Georgetown Division provided improved occupational health support to that area.

TRAINING AND DEVELOPMENT

A lineman training instructor was assigned to the Horry-Georgetown Division to conduct programs for Transmission and Distribution. New techniques were used to train Transmission and Distribution personnel using a live line safety training simulator which improved work site safety. A new pole top and bucket truck rescue training program for all linemen was developed.

Employees attended 755 training programs in various subject areas for professional, technical, and skills development.

Emphasis was placed on Hazard Communication training for employee awareness of various types of chemicals in the work place.

A computer laboratory/classroom was designed for advanced and basic computer instruction by a full-time computer training instructor.

The refresher firefighting course was updated and conducted for all Production Department personnel at the generating stations.

Simulator training was provided for generating station unit and auxiliary operators to increase job proficiency and to improve heat rates.

Courses leading to two- and four-year college degrees and graduate degrees were completed by 200 employees through the tuition aid program.

SAFETY

Santee Cooper's 1987 safety record was the best since 1981. Lost time injuries were reduced by 36 percent and total accidents by 8 percent. This safety record earned Santee Cooper second place recognition from the American Public Power Association.

The National Safety Council issued 22 organizational unit awards, while the South Carolina Occupational Safety Council issued 21 organizational unit awards.

Grainger Generating Station, Darlington Area, and Conway Area Transmission units were presented Awards of Merit for no recordable injuries. President's Awards were presented to 91 units for no disabling injuries while operating under hazardous conditions. Safe service awards were presented to 264 employees; safe driver awards were given to 138 employees; and six employees were cited for avoiding injury by wearing protective devices or equipment. New safety programs include Employee Safety Incentives and a Safety Shoe Program.

Workers' Compensation claims paid were reduced by 54 percent.

CORPORATE FORECASTING, RATES, & STATISTICS

A new time-of-use commercial rate structure began March 1, 1988. This rate will reduce a customer's electric bill if the customer shifts load from peak to off-peak hours. This load shift lowers the energy cost to all customers by maximizing the efficient use of facilities installed to meet customer electrical power requirements. This and other demand-side management programs will extend the time before construction of the next generating unit will be needed.

A telephone survey of commercial customers was conducted with the assistance of the University of South Carolina to obtain appliance saturation data and to determine future electric energy needs.

Solid-state metering was installed for large industrial and municipal customers, permitting remote reading. In approximately one year, Santee Cooper will begin installing solid-state metering for all members of Central Electric Power Cooperative, Inc. This new technology will provide real time information regarding customers' electricity usage, and it will ensure timely delivery of electric bills.

Santee Cooper was recognized as a leader in the utility industry in the state and is frequently called upon to present its demand-side management program to utilities across the country.

Governor Campbell issued a proclamation establishing an efficiency standard regarding mobile homes for the state. This was the result of standards developed jointly by Santee Cooper's Energy Management and Rates units. This new standard will benefit all South Carolinians and lower energy costs throughout the state.

MANAGEMENT INFORMATION SYSTEMS

A new high performance mainframe computer system was installed to meet increasing corporate demands. To improve tape handling and storage media, a new technology of tape cartridges was added, along with additional disk storage to increase data space.

Systems and Programming developed computerized support for Santee Cooper's automotive system, including preventative maintenance, repair order entry, and monthly progress reporting functions. Also completed were a number of microcomputer-based applications and a service work order system to track retail customer service requests.

Improvements to other application systems such as purchasing, payroll, and

materials control were also made. Still under development are a number of software projects supporting additional materials control, a fuels management system, and a budget information system.

Technical Support upgraded the mainframe system which delivers computer and terminal-user capability and the office automation functions. The installation of 150 new terminals and 70 personal computers provided access to stored information for more than 600 employees who use the computer system.

ACCOUNTING AND FINANCE

In February, the board of directors approved the development of a new mini-bond program to offer investment opportunities for a greater number of people in South Carolina. The mini-bonds will be issued in \$500 denominations with a \$5,000 maximum purchase by any one individual. The bonds are available exclusively to state residents, Santee Cooper customers and employees, and members of the 20 electric cooperatives of South Carolina. The bonds will have a "put" feature which will enable bondholders to sell their mini-bonds back to Santee Cooper for a 3 percent administrative fee upon 30 days written notice. Interest on the mini-bonds will be paid semi-annually. The first issue of mini-bonds, with an interest rate of 7 3/4 percent, was sold September 23, 1988, and will mature July 1, 2003.

APPLICATIONS OF REVENUE
Years Ended June 30, 1988 and 1987

	1988	1987
Total Operating Revenues	\$491,980,615	\$480,059,055
Operating Expenses:		
Operation		
Production	212,566,884	204,600,163
Purchased and Interchanged Power - Net	(1,868,330)	2,698,075
Transmission	2,373,714	1,821,495
Distribution	3,226,692	2,300,421
Customer Accounts	3,390,746	(172,250)
Sales	356,828	317,427
Administrative and General	32,834,086	28,692,720
Maintenance	34,387,339	33,388,056
Total Operation and Maintenance Expenses	287,267,959	273,646,107
Sums in Lieu of Taxes	3,055,303	2,389,663
Total Operating Expenses	290,323,262	276,035,770
Net Operating Revenues	201,657,353	204,023,285
Other Income	24,618,712	24,996,744
Revenue Available for Debt Service and Other Purposes	226,276,065	229,020,029
Total Debt Service	145,974,914	154,236,930
Lease Payments to Central	5,396,439	5,465,308
Principal and Interest on Other Obligations	24,555,116	25,038,097
Balance After Debt Service, Lease Payments, and Other Obligations	50,349,596	44,279,694
Payments to the State of South Carolina	3,002,868	2,003,036
Payment to the Special Reserve Fund - Net	1,841,074	1,459,116
Mandatory 8% Allocation for Capital Improvements	27,827,946	26,761,366
Revenue Available for Operating Requirements	\$17,677,708	\$14,046,176

(1) This summary has been prepared from the financial statements and other data of the Authority and has not been examined by the independent auditors. This summary presents the net revenues available to the Revenue Fund for purposes such as providing for increases in working capital requirements. It differs from the Statement of Reinvested Earnings in that it represents cash transactions on debt service and, accordingly, excludes non-cash items such as depreciation, costs to be recovered for future revenue, and amortization of debt discount and expense.

Schedule of Bonds Outstanding

As of June 30, 1988

(In Thousands)

Maturity Date July 1	1950 Issue		1967 Issue		1973 Refunding Issue		1973 Issue		1974 Issue		1977 Refunding Issue		1977 Issue	
	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.
1988	2.70	310	4.10	715*	5.00	1,010	5.20	1,250	6.00	1,325	5.00	3,280	4.60	515
1989	2.70	480	4.10	575*	5.00	1,060	5 1/4	1,315	6.10	1,405	5.10	3,450	4.70	540
1990	2.70	1,900	4.10	420*			5 1/4	1,380	6.20	1,505	5.20	3,620	4.80	570
1991	2.70	1,950	4.10	440*			5.30	1,455	6 1/4	1,590	5.30	3,830	4.90	590
1992	2.70	2,005	4.10	455*			5.40	1,530	6.30	1,695	5.40	4,035	5.00	625
1993	2.70	2,060	4.10	480*			5.40	1,615	6.30	1,795	5 1/2	4,260	5.10	660
1994			4.10	2,605*			5 3/4	1,700*	6.40	1,910	5.60	4,480	5.20	720
1995			4.10	2,720*			5 3/4	1,795*	6.40	2,035	5.65	4,710	5.30	785
1996			4.10	2,845*			5 3/4	1,900*	6.40	2,155	5.70	4,995	5.40	830
1997			4.10	2,975*			5 3/4	2,010*	6 1/2	2,295	5.70	5,265	5.45	890
1998			4.10	3,105*			5 3/4	2,125*	6 1/2	2,435	5 7/8	5,590*	5 1/2	935
1999			4.10	3,245*			5 3/4	2,245*	6 1/2	2,590	5 7/8	5,915*	5 1/2	1,005
2000			4.10	3,395*			5 3/4	2,375*	6 3/4	2,750*	5 7/8	6,275*	5.55	1,065
2001			4.10	3,545*			5 3/4	2,510*	6 3/4	2,920*	5 7/8	6,665*	5.60	1,130
2002			4.10	3,705*			5 3/4	2,655*	6 3/4	3,110*	5 7/8	7,050*	5.60	1,220
2003			4.10	3,870*			5 3/4	2,810*	6 3/4	3,295*	6.00	7,490*	5 3/4	1,295*
2004			4.10	4,045*			5 3/4	2,970*	6 3/4	3,505*	6.00	7,950*	5 3/4	1,380*
2005			4.10	4,230*			5 3/4	3,140*	6 3/4	3,730*	6.00	8,450*	5 3/4	1,460*
2006			4.10	4,420*			5 3/4	3,325*	6 3/4	3,950*	6.00	8,970*	5 3/4	1,570*
2007							5 3/4	3,515*	6 3/4	4,205*	6.00	9,400*	5 3/4	1,795*
2008							5 3/4	3,715*	6 3/4	4,470*	6.00	9,950*	5 3/4	1,945*
2009							5 3/4	3,930*	6 3/4	4,745*	6.00	10,565*	5 3/4	2,080*
2010							5 3/4	4,155*	6 3/4	5,045*	6.00	11,210*	5 3/4	2,225*
2011							5 3/4	11,520*	6 3/4	5,350*	6.00	4,980*	5 3/4	2,180*
2012							5 3/4	12,180*	6 3/4	5,695*	6.00	5,315*	5 3/4	2,300*
2013							5 3/4	12,880*	6 3/4	6,045*	6.00	5,625*	5 3/4	2,500*
2014									6 3/4	20,045*	6.00	6,010*	5 3/4	2,640*
2015											6.00	9,515*	5 3/4	21,065*
2016											6.00	11,285*	5 3/4	21,235*
2017													5 3/4	34,580*
2018														
2019														
2020														
2021														
2022														
Total														
Outstanding		8,705		47,790		2,070		92,000		101,595		190,135		112,330
Bonds Redeemed to 6-30-88		6,595		3,810		9,980		8,000		7,405		25,015		2,670
Bonds Refunded to 6-30-88		0		0		0		0		0		0		0
Original Issue		15,300		51,600		12,050		100,000		109,000		215,150		115,000

*Term Bonds

See Schedule of Refunded Bonds.

1978 Issue		1979A Issue		1980A Issue		1981A Issue		1981C Issue		1982A Issue		1982B Issue		1982 Refunding Issue	
Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.
4.90	1,125	5.60	1,105	9.00	950	8.00	760	11.00	865	10 1/2	1,595	10 1/4	740	7 1/2	470
5.00	1,200	5.70	1,150	9.10	1,035	8.15	845	11 1/4	965	11.00	1,735	10 1/2	835	7 3/4	505
5.05	1,155	5 3/4	1,195	9.20	1,130	8.30	940	11 1/2	1,070	11 1/2	1,905	10 3/4	940	8.00	545
5.10	1,220	5.85	1,240	9 1/4	1,235	8.45	1,050	11 3/4	1,185	11 3/4	2,105	11.00	1,060	8.20	585
5.15	1,285	5.90	1,300	9.30	1,350	8.60	1,165					11 1/4	1,195	8.40	635
5.20	1,355	5.95	1,360	9.40	1,475	8 3/4	1,295							8.60	690
5 1/4	1,440	6.00	1,425	9.45	1,615	8.90	1,435							8 3/4	750
5.30	1,515	6.05	1,490	9 1/2	1,765	9.00	1,600							9 3/8	815*
5.35	1,585	6.10	1,565	9.80	1,930*	9.15	1,775							9 3/8	890*
5.40	1,670	6.20	1,645	9.80	2,120*	9.30	1,970							9 3/8	975*
5.40	1,760	6.30	1,725	9.80	2,330*	9 3/4	2,190*							9 3/8	1,070*
5.70	1,850*	6.35	1,815	9.80	2,560*	9 3/4	2,430*							9 3/8	1,165*
5.70	1,940*	6.40	1,915	9.80	2,810*	9 3/4	2,700*							9 3/8	1,275*
5.70	2,045*	6.45	2,025	9.80	3,085*	9 3/4	2,995*							9 3/8	1,395*
5.70	2,145*	6 1/2	2,135	9.80	3,385*	9 3/4	8,000*							9 3/8	1,525*
5.70	2,260*	6 1/2	2,260												
5.70	2,380*	6 3/4	2,390*												
5.70	2,500*	6 3/4	2,540*												
5.70	2,630*	6 3/4	2,695*												
5.70	7,385*	6 3/4	2,865*												
5.70	7,845*	6 3/4	3,010*												
5 7/8	8,330*	6 3/4	3,160*												
5 7/8	8,845*	6 7/8	3,335*												
5 7/8	9,390*	6 7/8	3,525*												
5 7/8	9,980*	6 7/8	3,720*												
5 7/8	10,590*	6 7/8	3,925*												
5 7/8	11,250*	6 7/8	4,140*												
5 7/8	11,950*	6 7/8	4,370*												
5 7/8	12,555*	6 7/8	4,610*												
5 7/8	13,190*	6 7/8	4,870*												
5 7/8	50,600*	6 7/8	5,135*												
		6 7/8	25,550*												
194,970		105,190		28,775		31,150		4,085		7,340		4,770		13,290	
5,030		4,810		3,500		1,850		1,495		2,840		1,220		435	
0		0		42,725		42,000		144,420		154,820		159,010		280,275	
200,000		110,000		75,000		75,000		150,000		165,000		165,000		294,000	

1985 Refunding Issue		1985 Issue		1985A Refunding Issue		1986A&B Refunding Issue		1986C&D Refunding Issue		1987A Refunding Issue		Total Principal Maturities	Accruing Interest	Total Debt Service
Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.			
6 $\frac{3}{4}$	460	6 $\frac{3}{4}$	13,500	6 $\frac{1}{4}$	335			4 $\frac{1}{2}$	760	3.90	785	31,855	136,024	167,879
7.00	490	7.10	13,500	6 $\frac{3}{4}$	360			5.00	795	4.30	805	33,045	133,934	166,979
7 $\frac{1}{4}$	525	7.40	13,500	7.00	380			5 $\frac{1}{4}$	830	4.60	850	34,360	131,681	166,041
7 $\frac{1}{2}$	565	7.70	13,500	7 $\frac{1}{4}$	410	6 $\frac{3}{4}$	1,890	5.40	875	4.80	880	37,655	129,289	166,944
7 $\frac{3}{4}$	605	8.00	13,500	7 $\frac{1}{2}$	440	7.00	5,665	5.60	925	5.00	930	39,340	126,593	165,933
8.00	650	8.20	13,500	7 $\frac{3}{4}$	470	7.15	7,380	5.80	975	5.90	975	40,995	123,868	164,863
8.20	705	8.40	13,500	8.00	510	7.30	7,890	6.00	1,030	5.90	1,025	42,740	121,025	163,765
8.40	765	8.70	13,500	8.20	2,425	7.40	6,580	6.20	1,095	5.90	1,080	44,675	117,972	162,647
8.60	825			8.40	2,030	7 $\frac{1}{2}$	7,645	6.40	1,160	5.90	1,140	33,270	114,704	147,974
8.80	900			8.60	2,390	7.60	7,995	6.60	1,235	6.00	1,205	35,540	112,439	147,979
9.00	1,060			8.70	4,980	7.70	5,925	6.70	1,320	6.10	1,280	37,830	109,983	147,813
9.05	1,160			8 $\frac{3}{4}$	5,405	7.80	6,365	6.80	1,400	6 $\frac{1}{4}$	1,350	40,500	107,298	147,798
9.10	1,150					7.80	13,200	6.90	1,505	6.40	1,435	43,790	104,393	148,183
				9.00	11,020*	7.90	835	7.00	1,605	6 $\frac{1}{2}$	2,875	44,650	101,283	145,933
				9.00	6,090*	7.90	900	7.05	1,715	6 $\frac{1}{2}$	4,280	47,915	98,012	145,927
				9.00	15,390*	8.00	4,695	7.10	3,510	6.60	4,575	51,450	94,481	145,931
						8.00	5,070	7.10	4,920	6 $\frac{3}{4}$	20,390	55,000	90,827	145,827
9 $\frac{3}{4}$	5,000*					8.00	5,475	7.10	5,265	6 $\frac{3}{4}$	16,795	58,585	87,269	145,854
						8.00	5,910	7.20	5,625	6 $\frac{3}{4}$	2,350	41,445	83,344	124,789
						8.10	6,390	7.20	6,000	6 $\frac{3}{4}$	2,525	44,080	80,709	124,789
						8.10	6,905	7.00	6,415*	6 $\frac{7}{8}$	2,715*	46,970	77,821	124,791
						8.00	7,465*	7.00	6,850*	6 $\frac{7}{8}$	2,925*	50,050	74,752	124,802
						8.00	8,060*	7.00	7,310*	6 $\frac{7}{8}$	3,140*	53,325	71,471	124,796
						8.00	10,480*	7.00	6,025*	6 $\frac{7}{8}$	3,380*	56,830	67,970	124,800
						8.00	11,315*	7.00	6,430*	6 $\frac{7}{8}$	3,625*	60,560	64,236	124,796
						8.00	12,230*	7.30	6,870*	6.90	3,880*	64,545	60,253	124,798
				9.20	6,745*	8.00	2,095*	7.30	7,915*	6.90	4,150*	64,990	55,984	120,974
				9.20	7,700*	8.00	2,260*	7.30	8,145*	6.90	4,465*	69,470	51,521	120,991
						8.00	2,445*	7.30	20,430*	6.90	4,785*	77,345	46,944	124,289
						8.00	2,625*	7.30	21,875*	6.90	5,160*	82,300	41,974	124,274
						8.00	2,850*	7.30	23,425*	6.90	5,575*	87,585	36,713	124,298
				9.20	29,520*	8.00	3,740*	7.30	25,080*	6.90	6,030*	89,920	31,065	120,985
				9.20	39,725*	7.00	23,675*	7.30	27,005*	6.90	6,520*	96,925	24,046	120,971
				9.20	37,200*			7.30	56,985*	6.90	7,040*	101,225	16,313	117,538
								6 $\frac{3}{4}$	62,325*	7.00	61,025*	123,350	8,245	131,595
14.860		108,000		173,525		195,955		335,630		191,945		1,964,110	2,934,436	4,898,546
845		27,000		4,320		0		0		715		117,535		
160,510		0		0		0		0		0		983,760		
176,215		135,000		177,845		195,955		335,630		192,660		3,065,405		

Schedule of Refunded Bonds

As of June 30, 1988

(In Thousands)

Series	1980 Issue		1981A Issue		1981B Issue		1981C Issue		1982A Issue		1982B Issue		1982 Ref. Issue		1985 Ref. Issue	
Call Date	July 1, 1990		July 1, 1991		July 1, 1991		July 1, 1991		July 1, 1991		July 1, 1992		July 1, 1992		July 1, 1995	
Original Maturity Date	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.	Int. Rate	Amt.
1988																
1989																
1990																
1991																
1992							12.00	1,315	12.00	2,335						
1993							12 1/4	1,470	12.30	2,590	11.60	1,345				
1994							12 1/2	1,635	12.60	2,895	11.90	1,515				
1995					11.00	3,090					12.10	1,815				
1996					11.10	4,000					12.20	2,040				
1997					11.20	4,220					12.30	2,295				
1998					11.30	4,590										
1999					11.40	5,090										
2000					11 1/2	12,010										
2001							13 1/4	20,000*								
2002																
2003									13 3/4	20,000*						
2004																
2005											12 3/4	40,000*				
2006																
2007																
2008																
2009																
2010	10 1/8	42,725*														
2011																
2012													9.60	37,235*		
2013					9 1/4	28,000*										
2014																
2015							10.00	20,000*								
2016																
2017																
2018																
2019																
2020			10 1/4	42,000*	12.00	89,000*										
2021					10 1/2	50,000*	13 3/4	100,000*								
2022									14 1/8	127,000*	13.00	110,000*	9.70	243,040*	9 1/2	160,510*
Totals																
Per Series																
Series	42,725		42,000		200,000		144,420		154,820		159,010		280,275		160,510	

*Term Bonds

**South Carolina
Public Service Authority
Fiscal Year 1988**

**Report of Independent Certified
Public Accountants**

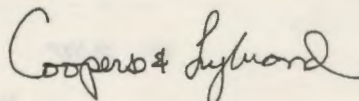
The Advisory Board
and Board of Directors
South Carolina Public
Service Authority

We have audited the accompanying balance sheets of the South Carolina Public Service Authority as of June 30, 1988 and 1987, and the related statements of reinvested earnings, accumulated earnings reinvested in the business, and changes in financial position for each of the three years in the period ended June 30, 1988. These financial statements are the responsibility of the Authority's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The financial statements of the South Carolina Public Service Authority are intended to present the financial position and results of operations and changes in financial position of proprietary fund types of only that portion of the funds and account groups of the State of South Carolina that is attributable to the transactions of the South Carolina Public Service Authority.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the South Carolina Public Service Authority as of June 30, 1988 and 1987, and the results of its operations and changes in its financial position for each of the three years in the period ended June 30, 1988 in conformity with generally accepted accounting principles.



Coopers & Lybrand
Columbia, South Carolina
August 18, 1988

Balance Sheets

South Carolina Public Service Authority
June 30, 1988 and 1987

Assets	1988	1987
	(Thousands)	
Utility Plant — At Cost:		
Electric plant in service	\$ 2,121,928	\$ 2,050,086
Construction work in progress	78,721	72,415
Total	2,200,649	2,122,501
Less accumulated depreciation	479,872	415,187
Electric plant — net	1,720,777	1,707,314
Nuclear fuel — net	28,467	20,534
Utility plant — net	1,749,244	1,727,848
Other Physical Property (Net of Accumulated Depreciation)	368	379
Cash and Investments Held by Trustee	305,929	345,828
Current Assets:		
Cash and investments held by trustee	35,104	34,775
Accounts receivable, less allowance for doubtful accounts of \$1,056,000 in 1988 and \$844,000 in 1987	50,283	53,899
Accrued interest receivable	4,004	3,961
Inventories, at average cost:		
Fuel (coal and oil)	37,208	29,762
Materials and supplies	10,774	6,142
Prepaid expenses	1,898	2,440
Total current assets	139,271	130,979
Deferred Debits:		
Unamortized debt expense	17,720	18,676
Unamortized loss on refunded debt	222,171	230,137
Costs to be recovered from future revenue	224,779	197,347
Other	7,646	3,296
Total deferred debits	472,316	449,456
Total	\$ 2,667,128	\$ 2,654,490

The accompanying notes are an integral part of the financial statements.

Liabilities and Capitalization	1988	1987
	(Thousands)	
Long-Term Debt:		
Priority Obligations	\$ 58,565	\$ 60,515
Electric System Expansion Revenue Bonds	1,797,545	1,816,090
Subtotal	1,856,110	1,876,605
Electric Revenue Bonds	108,000	121,500
Capitalized lease obligations	68,949	71,755
Total long-term debt	2,033,059	2,069,860
Less:		
Reacquired debt	2,535	2,220
Unamortized debt discount and premium — net	25,778	27,271
Long-term debt — net	2,004,746	2,040,369
Accrued Interest on Long-Term Debt	68,222	71,113
Construction Fund Liabilities — Accounts Payable	2,415	1,737
Other Non-current Liabilities	9,026	6,303
Current Liabilities:		
Commercial paper	50,000	50,000
Accounts payable	31,070	28,695
Customer deposits	4,971	4,690
Accrued sums in lieu of taxes	1,522	1,146
Other	15,563	7,212
Total current liabilities	103,126	91,743
Commitments and Contingencies		
Deferred Credits:		
Unamortized gain on reacquired debt	420	406
Nuclear fuel settlement	16,572	16,344
Total deferred credits	16,992	16,750
Capital Contributions — U.S. Government Grants	34,438	34,438
Accumulated Earnings Reinvested in the Business	428,163	392,037
Total	\$ 2,667,128	\$ 2,654,490

Statements of Accumulated Earnings Reinvested in the Business

South Carolina Public Service Authority
Years Ended June 30, 1988, 1987 and 1986

	1988	1987	1986
	(Thousands)		
Accumulated earnings reinvested in the business — beginning of year	\$ 392,037	\$ 353,750	\$ 325,545
Reinvested earnings for the year	39,129	40,290	30,106
Total	431,166	394,040	355,651
Distribution to the State of South Carolina (See note below)	3,003	2,003	1,901
Accumulated earnings reinvested in the business — end of year	\$ 428,163	\$ 392,037	\$ 353,750

Note: The distribution to the State of South Carolina is determined utilizing a calculation formula required under the Indenture which is based essentially on operating cash flow and mandatory reserve requirements. Such calculation varies substantially from reinvested earnings for the year principally due to costs to be recovered from future revenue and working capital requirements.

The accompanying notes are an integral part of the financial statements.

Statements of Reinvested Earnings

South Carolina Public Service Authority
Years Ended June 30, 1988, 1987 and 1986

	1988	1987	1986
	(Thousands)		
Operating Revenues:			
Sales of electricity	\$ 487,684	\$ 475,425	\$ 451,537
Other operating revenues	4,296	4,634	3,463
Total operating revenues	491,980	480,059	455,000
Operating Expenses:			
Operation expense:			
Production	212,567	204,600	195,058
Purchased and interchanged power — net	(1,868)	2,698	(213)
Transmission	2,374	1,821	1,991
Distribution	3,227	2,300	2,158
Customer accounts	3,391	(172)	1,850
Sales	357	318	284
Administrative and general	32,834	28,693	25,231
Maintenance expense	34,387	33,388	34,596
Total operation and maintenance expense	287,269	273,646	260,955
Depreciation	66,670	65,033	63,764
Sums in lieu of taxes	3,055	2,390	2,176
Total operating expenses	356,994	341,069	326,895
Operating Income	134,986	138,990	128,105
Other Income:			
Interest income:			
Other funds	24,737	25,178	26,833
Borrowed funds	—	284	5,459
Other income (expense) — net	(118)	(181)	(146)
Total other income	24,619	25,281	32,146
Subtotal	159,605	164,271	160,251
Interest Charges:			
Interest on long-term debt	138,675	144,190	150,224
Other	9,233	9,030	5,983
Total interest charges	147,908	153,220	156,207
Subtotal	11,697	11,051	4,044
Other, Add (Subtract):			
Costs to be recovered from future revenue	27,432	28,921	27,863
Other deductions — net	—	318	(1,801)
Reinvested Earnings	\$ 39,129	\$ 40,290	\$ 30,106

The accompanying notes are an integral part of the financial statements.

Statements of Changes in Financial Position

South Carolina Public Service Authority
Years Ended June 30, 1988, 1987 and 1986

	1988	1987	1986
	(Thousands)		
Funds Provided By:			
Operations:			
Reinvested earnings	\$ 39,129	\$ 40,290	\$ 30,106
Charges (credits) to reinvested earnings not providing or requiring funds:			
Depreciation	66,670	65,033	63,764
Amortization of debt discount and expense	2,449	2,408	2,281
Amortization of loss (gain) on debt	3,533	4,061	1,228
Costs to be recovered from future revenue	(27,432)	(28,921)	(27,863)
Total from operations	84,349	82,871	69,516
Sale of bonds/notes	—	528,290	195,955
Decrease (increase) in cash and investments held by Trustee	39,899	(10,465)	(41,779)
Deferred gain (loss) on debt	4,447	(79,959)	(28,237)
Increase (decrease) in construction fund liabilities	678	(4,895)	(7,606)
Nuclear fuel settlement	228	217	173
Total funds provided	129,601	516,059	188,022
Funds Applied To:			
Increase in utility plant	88,055	46,978	35,857
Retirement of long-term debt	33,995	468,958	177,475
Decrease (increase) in interest on long-term debt	2,891	705	(6,167)
Increase (decrease) in unamortized debt discount and expense	—	7,924	50
Principal payments — capitalized lease obligations	2,806	2,784	2,716
Distribution to the State of South Carolina	3,003	2,003	1,901
Decrease (increase) other - net	1,942	(1,984)	1,370
Total funds applied	132,692	527,368	213,202
Increase (Decrease) in Working Capital	\$ (3,091)	\$ (11,309)	\$ (25,180)
Increase (Decrease) in Working Capital by Component:			
Cash and investments held by trustee	\$ 329	\$ 1,650	\$ (2,563)
Accounts receivable, less allowance for doubtful accounts	(3,616)	1,932	11,877
Accrued interest receivable	43	2,278	(1,190)
Inventories	12,078	(11,107)	(9,993)
Other current assets	(542)	416	617
Accounts payable	(2,375)	(5,876)	5,393
Customer deposits	(281)	(255)	(735)
Accrued sums in lieu of taxes	(376)	(70)	(57)
Commercial paper	—	—	(25,000)
Other current liabilities	(8,351)	(277)	(3,529)
Increase (Decrease) in Working Capital	\$ (3,091)	\$ (11,309)	\$ (25,180)

The accompanying notes are an integral part of the financial statements.

June 30, 1988

Note 1 — Summary of Significant Accounting Policies:

A — Reporting Entity — The South Carolina Public Service Authority (the "Authority"), a component unit of the state of South Carolina, was created by the 1934 State Legislature. The Board of Directors is appointed by the Governor of South Carolina. The purpose of the Authority is to provide electric power to the people of South Carolina. Capital projects are funded by bonds issued by the Authority and internally generated funds. The Board of Directors sets rates to pay debt service, operating expenses and provide funds required under bond covenants.

B — System of Accounts — The accounting records of the Authority are maintained substantially in accordance with the Uniform System of Accounts prescribed by the Federal Energy Regulatory Commission (FERC).

C — Utility Plant Capitalization and Maintenance — Additions to plant are recorded at cost, which includes material, labor, overhead, and interest capitalized during construction. The costs of repairs and minor replacements are charged to appropriate operating and maintenance expense. The costs of renewals and betterments are capitalized. The original cost of utility plant retired and the cost of removal less salvage are charged to accumulated depreciation.

D — Depreciation — Depreciation is computed on a straight line basis over the estimated useful lives of the various classes of the plant. Annual depreciation provisions, expressed as a percent of average depreciable utility plant in service, were approximately 3.3% for each of the three years in the period ended June 30, 1988. Amortization expense of capitalized leases is included in depreciation expense.

E — Revenue Recognition — Substantially all wholesale and industrial revenues are billed and recorded at the end of each month. Revenues from retail customers are recognized on a monthly cycle basis. Fuel costs are reflected in operating expenses as consumed.

F — Capitalization of Interest During Construction — Interest capitalized during construction is the net cost of borrowed funds used during construction.

G — Amortization — Unamortized debt discount, premium and expense are amortized to income over the terms of the related debt issues. Unamortized gains or losses on refunded debt are amortized to income as impacted through the rate-making process, generally over the terms of the new debt issues.

Note 2 — Costs to be Recovered from Future Revenue:

The Authority's electric rates are established based upon debt service and operating fund requirements.

Depreciation is not considered in the cost of service calculation. This results in timing differences between costs as defined in the rate-making process and costs determined in accordance with generally accepted accounting principles. These differences are recognized as costs to be recovered from future revenue. The recovery of outstanding amounts associated with costs to be recovered from future revenue will coincide with the retirement of the outstanding long-term debt of the Authority.

For the years ended June 30, 1988, 1987 and 1986, costs to be recovered from future revenue included in the statement of reinvested earnings consists principally of the difference between depreciation and debt service requirements.

Note 3 — Cash and Investments Held by Trustee:

Unexpended funds from the sale of expansion bonds, debt service funds, other special funds and cash and securities are held and maintained by trustees and their use restricted in accordance with applicable provisions of various trust indentures, bond resolutions, lease agreements, and the Enabling Act included in the South Carolina law. Such funds consist principally of investments in government securities carried at amortized cost.

CASH — Cash includes \$89,043,000 at June 30, 1988 and \$90,327,000 at June 30, 1987 for bond principal and interest payments due on July 1, 1988 and 1987, respectively. Cash is categorized as follows; Category 1 includes bank balances entirely covered by federal depository insurance. Category 2 includes bank balances that are uncollateralized or collateralized with securities held by pledging financial institutions but not in the Authority's name.

INVESTMENTS — Trust indentures and resolutions authorize the Authority to invest in obligations of the U.S. Treasury, agencies, instrumentalities, and certificates of deposit. The Authority's investments consist of U.S. Government securities, certificates of deposit and repurchase agreements. The Authority requires that securities underlying repurchase agreements have a market value of at least 102 percent of the cost of the repurchase agreement. Securities underlying repurchase agreements are delivered by broker dealers to the Authority's trust agents. At June 30, 1988, the Authority's repurchase agreements totalled \$14,725,000.

The Authority's investments are categorized below to give an indication of the level of risk assumed by the entity at year-end. Category 1 includes investments that are insured or registered or for which the securities are held by trust agents in the Authority's name. Category 2 includes uninsured certificates of deposit which are collateralized with securities held by the pledging financial institution but not in the Authority's name.

	1988					
	Investments		Cash		Total	
	Category	Category	Category	Category	Carrying	Market
	1	2	1	2	Value	Value
	(Thousands)					
General Improvement Funds	\$ 47,880	\$ 200	\$ 5	\$ 47	\$ 48,132	\$ 48,131
Debt Service and Special Funds						
Indentured Bonds						
Interest Fund	\$ —	\$ —	\$ —	\$ 1,149	\$ 1,149	\$ 1,149
Bond Fund	—	—	—	2,042	2,042	2,042
Debt Service	8,814	—	—	—	8,814	8,997
Expansion Bonds						
Interest Fund	—	—	—	62,658	62,658	62,658
Bond Fund	—	—	—	16,320	16,320	16,320
Debt Service	130,069	—	—	23	130,092	131,523
Subordinated Bonds						
Interest Fund	—	—	—	13,500	13,500	13,500
Bond Fund	—	—	—	4,202	4,202	4,202
Debt Service	3,737	1,250	—	48	5,035	5,026
Other Special Funds	20,159	—	5	(6,179)	13,985	12,855
Total	\$162,779	\$1,250	\$ 5	\$93,763	\$257,797	\$258,272
Cash and Securities Held by Trustee						
Revenue Fund	\$ 27,785	\$ —	\$ —	\$ 4,815	\$ 32,600	\$ 32,589
Special Reserve Fund	2,442	—	100	(38)	2,504	2,502
Total	\$ 30,227	\$ —	\$100	\$ 4,777	\$ 35,104	\$ 35,091

	1987					
	Investments		Cash		Total	
	Category	Category	Category	Category	Carrying	Market
	1	2	1	2	Value	Value
	(Thousands)					
General Improvement Funds	\$ 74,682	\$ 700	\$ —	\$ 689	\$ 76,071	\$ 77,599
Debt Service and Special Funds						
Indentured Bonds						
Interest Fund	\$ —	\$ —	\$ —	\$ 1,191	\$ 1,191	\$ 1,191
Bond Fund	—	—	—	1,957	1,957	1,957
Debt Service	8,806	—	—	1	8,807	9,023
Expansion Bonds						
Interest Fund	—	—	—	65,078	65,078	65,078
Bond Fund	—	—	—	14,545	14,545	14,545
Debt Service	136,025	—	—	47	136,072	139,129
Subordinated Bonds						
Interest Fund	—	—	—	4,624	4,624	4,624
Bond Fund	—	—	—	13,500	13,500	13,500
Debt Service	3,798	1,200	—	47	5,045	5,029
Other Special Funds	23,555	—	—	(4,617)	18,938	18,657
Total	\$172,184	\$1,200	\$ —	\$96,373	\$269,757	\$272,733
Cash and Securities Held by Trustee						
Revenue Fund	\$ 25,522	\$ —	\$ —	\$ 3,148	\$ 28,670	\$ 28,684
Special Reserve Fund	6,104	—	—	1	6,105	6,095
Total	\$ 31,626	\$ —	\$ —	\$ 3,149	\$ 34,775	\$ 34,779

Note 4 — Long-Term Debt Outstanding:

	June 30	
	1988	1987
	(Thousands)	
Priority Obligations:		
Electric Revenue Bonds, Series of 1950, bearing interest at 2.70% and due 1988 to 1993	\$ 8,705	\$ 9,005
Electric Revenue Bonds, Series of 1967, bearing interest at 4.10% and due 1988 to 2006	47,790	48,475
Electric Revenue Bonds, Refunding Series of 1973, bearing interest at 5% and due 1988 to 1989	2,070	3,035
Total Priority Obligations	58,565	60,515
Electric System Expansion Revenue Bonds:		
1973 Series, bearing interest from 5.20% to 5.75% and due 1988 to 1993 and 2013	92,000	93,185
1974 Series, bearing interest from 6% to 6.75% and due 1988 to 1999 and 2014	101,595	102,845
1977 Refunding Series, bearing interest from 5% to 6% and due 1988 to 1997 and 2002 and 2016	190,135	193,255
1977 Series, bearing interest from 4.60% to 5.75% and due 1988 to 2002 and 2017	112,330	112,820
1978 Series, bearing interest from 4.90% to 5.875% and due 1988 to 1998 and 2008 and 2018	194,970	196,040
1979 Series A, bearing interest from 5.60% to 6.875% and due 1988 to 2003 and 2009 and 2019	105,190	106,255
* 1980 Series A, bearing interest from 9.00% to 9.80% and due 1988 to 1995 and 2002	28,775	29,650
* 1981 Series A, bearing interest from 8.00% to 9.75% and due 1988 to 1997 and 2002	31,150	31,830
* 1981 Series C, bearing interest from 11.00% to 11.75% and due 1988 to 1991	4,085	4,870
* 1982 Series A, bearing interest from 10.50% to 11.75% and due 1988 to 1991	7,340	8,805
* 1982 Series B, bearing interest from 10.25% to 11.25% and due 1988 to 1992	4,770	5,425
* 1982 Refunding Series, bearing interest from 7.50% to 9.375% and due 1988 to 1994 and 2002	13,290	13,725
* 1985 Refunding Series, bearing interest from 6.75% to 9.375% and due 1988 to 2000 and 2005	14,860	15,295
1985 Refunding Series A, bearing interest from 6.25% to 9.20% and due 1988 to 1999 and 2003 and 2021	173,525	177,845
1986 Refunding Series A&B, bearing interest from 6.75% to 8.10% and due 1991 to 2008 and 2019 and 2020	195,955	195,955
1986 Refunding Series C&D, bearing interest from 4.50% to 7.30% and due 1988 to 2007 and 2012 and 2021 and 2022	335,630	335,630
1987 Refunding Series A, bearing interest from 3.90% to 7% and due 1988 to 2007 and 2012 and 2021 and 2022	191,945	192,660
Total Electric System Expansion Revenue Bonds	1,797,545	1,816,090
Electric Revenue Bonds, 1985 Series, bearing interest from 6.75% to 8.70% and due 1988 to 1995	108,000	121,500
Capitalized Subordinated Lease Contracts, payable 1988 to 2015	68,949	71,755
Total Long-Term Debt	\$2,033,059	\$2,069,860

*See schedule below for refunded debt.

The Authority refunds and defeases debt primarily as a means of reducing debt service, thereby postponing or reducing future electric rate adjustments. In fiscal year 1987, the Authority issued \$528 million in Electric System Expansion Bonds to advance refund certain maturities of the 1982 and 1985 Refunding Series Bonds (the original bonds) aggregating \$441 million. The new bonds bear an average interest rate of approximately 6.9%. The original bonds averaged approximately 9.6%. The net proceeds of the bonds, \$500 million (after payment of \$5.8 million and \$10.2 million in underwriting fees and original issue discount) plus an additional \$3.8 million were used to purchase U.S. Government securities. The

securities have been placed in an irrevocable trust to provide for all future debt service payments on the original bonds. As a result, the original bonds are considered defeased and the liability for those bonds has been removed from the Authority's accounts.

Although the advance refunding resulted in a deferred accounting loss of approximately \$81 million, the Authority was able to reduce its total debt service over the next 36 years by approximately \$164 million and obtain an economic gain (the difference between the present values of the debt service payments on the old and the new debt) of approximately \$56 million.

Amounts outstanding, original loss on refunding, and the unamortized loss at June 30, 1988 follow:

Refunding Issue	Refunded Bonds	Refunded Amount Outstanding	Original Loss	Unamortized Loss
(Thousands)				
1977 Refunding	1971 and 1976 Series	\$ —	\$ 11,244	\$ 7,079
1985 Refunding Series A	\$139,000 of the 1981 Series B and \$ 40,000 of the 1981 Series C	179,000	27,853	8,471
Cash Defeasance	\$ 20,000 of the 1982 Series A	20,000	2,763	2,505
1986 Refunding Series A&B	\$ 42,725 of the 1980 Series A \$ 42,000 of the 1981 Series A \$ 61,000 of the 1981 Series B \$ 4,420 of the 1981 Series C \$ 7,820 of the 1982 Series A \$ 9,010 of the 1982 Series B	166,975	28,812	43,736
1986 Refunding Series C&D	1982 Refunding Series (\$100,000 of the 1981 Series C and \$127,000 of the 1982 Series A)	507,275	110,372	104,392
1987 Refunding Series A	1985 Refunding Series (\$150,000 of the 1982 Series B)	310,510	60,029	55,988
Total		\$1,183,760	\$ 241,073	\$ 222,171

The Authority's bond indentures provide for certain restrictions, the most significant of which are:

The Authority covenants to establish rates and charges adequate to provide revenues sufficient, among other things, to pay debt service when due on the priority obligations and expansion bonds, to make required payments when due into the lease fund and the capital improvement fund, and to pay the costs of operation and maintenance of the Authority's electric system and all necessary repairs, replacements, and renewals thereof.

The Authority is presently required to pay annually into its capital improvement fund an amount which, together with the amounts deposited therein in the two preceding fiscal years, is at least equal to 8% of the Authority's gross revenues (as defined) in the three preceding fiscal years. The Authority may

issue additional parity expansion bonds if, among other things, the Authority's Consulting Engineer certifies that net revenues (as defined) in each succeeding fiscal year after the date on which such additional bonds are sold to and including the later of (a) the third succeeding full fiscal year after such date or (b) the first full fiscal year after the estimated date of commercial operation of any power plant to pay the cost of construction of which additional expansion bonds have been, are being, or are then authorized to be issued, shall be at least equal to the sum of the amounts required in such fiscal year for (i) debt service on the priority obligations and the expansion bonds then outstanding, being issued, or authorized but not yet issued, (ii) payments into the lease fund, and (iii) payments into the capital improvement fund.

Maturities of electric revenue bonds, priority obligations and expansion bonds during the years ending June 30, 1989 through 1993, are, as follows:

	Electric Revenue Bonds	Priority Obligations & Expansion Bonds	Total
	(Thousands)		
June 30, 1989	\$ 13,500	\$ 18,355	\$ 31,855
June 30, 1990	13,500	19,545	33,045
June 30, 1991	13,500	20,860	34,360
June 30, 1992	13,500	24,155	37,655
June 30, 1993	13,500	25,840	39,340
Total	\$ 67,500	\$ 108,755	\$ 176,255

Note 5 — Summer Nuclear Station:

The Authority and South Carolina Electric and Gas (SCE&G) are parties to a joint ownership agreement providing that the Authority and SCE&G shall own the Summer Nuclear Station with undivided interest of 33 $\frac{1}{3}$ % and 66 $\frac{2}{3}$ %, respectively. SCE&G is solely responsible for the design, construction, budgeting, management, operation, maintenance, and decommissioning of the Summer Nuclear Station, and the Authority is obligated to pay its ownership share of all costs relating thereto. The Authority receives 33 $\frac{1}{3}$ % of the net electricity generated. At June 30, 1988 and 1987, the plant accounts included approximately \$426,142,000 and \$426,070,000, respectively, representing the Authority's investment, including capitalized interest, in the Summer Nuclear Station. The Authority's interest in Summer Nuclear Station was financed solely by long-term debt. For the years ended June 30, 1988 and June 30, 1987, the Authority's operation and maintenance expenses included \$36,695,000 and \$29,335,000 respectively, for operation and maintenance expenses of the Summer Nuclear Station.

Nuclear fuel costs are being amortized based on energy expended which includes a component for estimated disposal costs of spent nuclear fuel. These amortizations are included in fuel expense and are recovered through the Authority's rates. Decommissioning costs (costs to take the plant out of service in the future) for the Summer Nuclear Station are estimated to be \$314 million, for the Authority's $\frac{1}{3}$ ownership, based on a 30 year useful life with decommissioning expected to commence in the year 2013. The Authority accrues for its share of the estimated decommissioning costs over the remaining life of the facility. These costs are being recovered through the Authority's rates. The estimated decommissioning costs are periodically reviewed and adjustments recorded as appropriate.

The supplier under the original uranium supply contract breached the contract in 1975 due to uranium market conditions. SCE&G initiated action seeking specific performance of the contract provisions, and a final settlement was reached and approved by all parties in April 1980. The agreement

provides for delivery of uranium, long-term deliveries of equipment and services (including conversion and fuel fabrication) at a discount. The Authority has received approximately \$10,243,000 in cash which has been recorded in deferred credits. Beginning in fiscal year 1989, the credits will be utilized to reduce fuel costs during reloading periods at the Summer Nuclear Station.

Note 6 — Commercial Paper:

The Board of Directors authorized the issuance of commercial paper not to exceed \$50,000,000. The paper is issued for valid corporate purposes with a term not to exceed 270 days at an annual interest rate not to exceed 9.5%. As of June 30, 1988 and 1987, the effective interest rate on outstanding borrowings was 4.96% and 4.47%, respectively. During 1988 and 1987 the average effective interest rate was 4.94% and 4.18%, and the average maturity was 38 and 44 days, respectively. The average amount outstanding during 1988 and 1987 was \$50,000,000.

At June 30, 1988, the Authority had a Revolving Credit Agreement with various lenders of \$50,000,000. This Agreement is used to support the Authority's issuance of commercial paper. Under the Agreement the Authority is required to pay a fee equal to 1/8 of 1% on the total line of credit, plus 1/8 of 1% on the average principal amount of the paper outstanding. No loans were outstanding under the Agreement at June 30, 1988.

Note 7 — Contracts with Central Electric Power Cooperative, Inc.:

The Authority has lease contracts with Central Electric Power Cooperative, Inc., covering a steam electric generating plant, transmission facilities, and various other facilities. The lease terms range from seven to twenty-seven years. Quarterly lease payments are based on a sum equal to the interest on and principal of Central's indebtedness to the Rural Electrification Administration for funds borrowed to construct the above mentioned facilities. The Authority has an option to purchase the leased properties at any time during the period of the lease agreement for a sum equal to Central's indebtedness remaining outstanding on the property involved at the time the option is exercised or to return the properties at the termination of the lease. The Authority plans to exercise each and every option to acquire ownership of such facilities prior to expiration of the leases.

Power supply and transmission services are provided to Central in accordance with the Power System Coordination and Integration Agreement dated January 19, 1981, and amended as of March 31, 1988. The amendment provides for a change in the Authority's rate-making methodology for Central. In addition, the Authority will be the sole supplier of Central's energy needs excluding what Central receives from the Southeast Power Administration and SCE&G.

Future minimum lease payments on Central leases, at June 30, 1988, were:

Years ending June 30:	Amount
(Thousands)	
1989	\$ 5,335
1990	5,258
1991	5,258
1992	5,258
1993	5,258
Thereafter	75,195
Total minimum lease payments	101,562
Less, amounts representing interest	32,613
Balance at June 30, 1988	\$ 68,949

Leased property under capitalized leases and related accumulated amortization included in utility plant at June 30, 1988 totaled \$102,400,000 and \$42,700,000, respectively, and at June 30, 1987 totaled \$102,500,000 and \$39,900,000, respectively.

Note 8 — Commitments and Contingencies:

BUDGET — The Authority's construction budget provides for expenditures of approximately \$79,000,000 during the fiscal year ending June 30, 1989, and \$199,100,000 during the two fiscal years thereafter.

DAM REINFORCEMENT — During 1982, FERC notified the Authority that the Pinopolis West Dam and the Santee North Dam, which form a part of the Authority's electric utility system, possessed marginal seismic stability under applicable design earthquake criteria. FERC indicated that remedial measures should be undertaken by the Authority to provide an increased level of seismic stability.

The preliminary design on the reinforcement of the Pinopolis West Dam was completed by the U.S. Army Corps of Engineers (Corps), and a contract was awarded in April 1988 by the Corps. The construction of the bolster is the responsibility of the Corps and is expected to cost the federal government \$28.3 million, including the engineering design. Construction is projected to last three years.

An "Emergency Action Plan" was developed for implementation in the event of a failure of the Santee North Dam. In 1986, FERC tentatively approved the plan with 22 modifications. The Authority agreed to all of the modifications except one regarding "strict liability" which was contested in Federal Court. On July 5, 1988, an order was received from the Federal District Court upholding the Authority's position and remanding the case to FERC. Based on the facts as they currently exist, management believes that any cost incurred by the Authority related to the dams would not materially affect the financial position of the Authority.

Note 9 — Retirement Plan:

Substantially all Authority full-time employees must participate in the South Carolina Retirement System ("System"), a cost-sharing multiple-

employer public employee retirement system. The payroll for employees covered by the system for the years ended June 30, 1988, 1987 and 1986 was \$45,959,000, \$42,484,000 and \$38,898,000, respectively.

Employees who retire at or after age 65 or have 30 years of service are entitled to a retirement benefit, payable monthly for life equal to 1.25 percent of the first \$4,800 of their final average salary and 1.65 percent of the final average amount in excess of \$4,800. Final average salary is the employee's average salary over the twelve highest consecutive quarters. Benefits fully vest on reaching 5 years of service. Vested employees may retire at or after 60 and receive reduced retirement benefits. The System also provides death and disability benefits. Benefits are established by State statute.

Employees are required by State statute to contribute 4 percent of the first \$4,800 and 6 percent of salary greater than \$4,800. The Authority is required by the same statute to contribute 7 percent of total payroll. The contribution requirement for each of the years ended June 30, 1988, 1987, and 1986 was \$3,286,000, \$3,098,000 and \$2,841,000 from the Authority and \$2,595,000, \$2,386,000 and \$2,180,000 from employees.

An actuarial valuation is performed for the System annually. At the most recent valuation date, June 30, 1987, the pension benefit obligation for retired and active members was approximately \$6.4 billion. The amortized cost of assets of the System was approximately \$4.8 billion. The unfunded pension obligation was approximately \$1.6 billion. The pension benefit obligation is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure, which is an actuarial present value of credited projected benefits, is intended to help users assess the System funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public employee retirement systems. The System does not make separate measurements of assets and benefits payable for individual employers. The Authority's contribution represented approximately two percent of the total contribution to the System.

Ten-year historical trend information showing the system's progress in accumulating sufficient assets to pay benefits when due is presented in the system's June 30, 1988 comprehensive annual financial report.

Note 10 — Major Customers:

Sales to the Authority's two major customers for the years ended June 30, were:

	1988	1987	1986
	(Thousands)		
Central Electric Power Cooperative, Inc.	\$ 203,000	\$ 207,000	\$ 193,000
Alumax of South Carolina, Inc.	\$ 76,000	\$ 69,000	\$ 68,000

BOARD OF DIRECTORS

Dwight A. Holder
Chairman

Walter T. Cox
1st Vice Chairman
Representing the 3rd Congressional District
Abbeville, Aiken, Allendale, Anderson,
Barnwell, Edgefield, Greenwood, McCormick,
Oconee, Pickens, and Saluda counties

Harold M. Robertson
2nd Vice Chairman
Representing the 1st Congressional District
Beaufort, Charleston, Colleton, Dorchester,
Hampton, and Jasper counties

Robert D. Bennett
Representing the electric cooperatives
of South Carolina

Eugene F. Oliver
Representing Berkeley County

Johnnie Joe Young
Representing Georgetown County

George W. Jones Jr.
Representing Horry County

John S. Rainey
Representing the 2nd Congressional District
Bamberg, Calhoun, Lexington, Orangeburg,
and Richland counties

Albert C. Gossett
Representing the 4th Congressional District
Greenville, Spartanburg, and Union counties

D. Gene Rickenbaker
Representing the 5th Congressional District
Cherokee, Chester, Chesterfield, Fairfield,
Kershaw, Lancaster, Laurens, Lee,
Newberry, Sumter, and York counties

Henry B. Rickenbaker
Representing the 6th Congressional District
Berkeley, Clarendon, Darlington, Dillon,
Florence, Georgetown, Horry, Marlboro,
Marion, and Williamsburg counties

CHANGES IN THE BOARD

There were two changes in Santee Cooper's Board of Directors during the past fiscal year. Columbia attorney John Rainey was appointed to represent the 2nd Congressional District, consisting of Lexington, Richland, Bamberg, Orangeburg, and Calhoun counties. A partner in the Demo and Rainey law firm, he is also president of Carolina Capital Corporation. Rainey is a Certified Specialist of taxation law and a fellow in the American College of Tax Counsel.

D. Gene Rickenbaker was appointed to represent the 5th Congressional District consisting of Cherokee, York, Chester, Fairfield, Lancaster, Kershaw, Lee, Sumter, and Chesterfield counties. He is a Sumter attorney and former chairman of the S.C. Department of Parks, Recreation & Tourism Commission. Rickenbaker is a member and past president of the Sumter Committee for Progress, and also serves on the board of trustees of Tuomey Hospital and the board of directors of the Sumter Chamber of Commerce.

MANAGEMENT

William C. Mescher
President and Chief Executive Officer

Kenneth R. Ford
Executive Vice President
Finance

Joe C. Norman
Executive Vice President
Commercial Operations

Robert E. Rainear
Executive Vice President
Engineering
and Operations

Robert V. Tanner
Executive Vice President
Production

F. Eugene Williams
Senior Vice President
Governmental Affairs
and Community Relations

Charles H. McGlothlin
General Counsel

Albert Boyt Jr.
Vice President
Transmission Operations

Emily S. Brown
Vice President and
Corporate Secretary

T. Graham Edwards
Vice President
Accounting
and Finance

Bill McCall Jr.
Vice President
Production Operations

Ronald T. Nolte
Vice President
Corporate Forecasting,
Rates, and Statistics

Robert F. Petracca
Vice President
Property and
Transportation

Byron C. Rodgers
Vice President
Engineering and
Construction Management

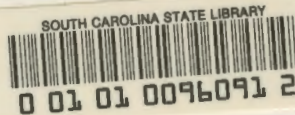
Joseph P. Thomas
Vice President
Planning and
Energy Control

Curtis L. Williamson
Vice President
Horry-Georgetown Division

H. Roderick Murchison
Treasurer

Elaine G. Peterson
Controller

Jerry L. Stafford
Director
Corporate Communications



ADVISORY BOARD

Carroll A. Campbell Jr.
Governor

John T. Campbell
Secretary of State

Grady L. Patterson Jr.
State Treasurer

T. Travis Medlock
Attorney General

Earle E. Morris Jr.
Comptroller General

FOR ADDITIONAL INFORMATION CONTACT:

Jerry L. Stafford
Director
Corporate Communications

Santee Cooper
One Riverwood Drive
Moncks Corner
South Carolina
29461-0398
(803) 761-4051